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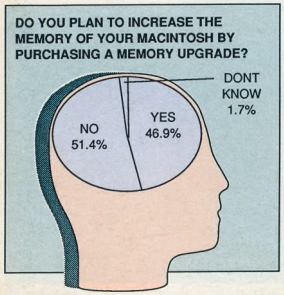


Aldus ups ante with PageMaker 3.0, FreeHand

BY RUSTY WESTON
MacWEEK Staff

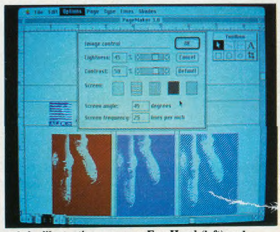
SEATTLE — Aldus' simultaneous introduction of its FreeHand drawing package and PageMaker 3.0 for the Mac proves art and power are not mutually exclusive.

Aldus Corp. of Seattle is upgrading its popular desktop publishing software for both the Mac and PC-compatible markets to Version 3.0, featuring color support, the ability to handle longer documents and auto-paginating.

With FreeHand, a new PostScript illustration program, Aldus will have a product competing directly with Illustrator from Adobe Systems Inc. of Mountain View, Calif., and Cricket Draw from Cricket Software of Malvern, Pa.

Paul Brainerd, Aldus founder and president, said the product announcements, including SnapShot (See related story, Page 19.), demonstrate a change in the company's "mission."

PHOTOS BY RANDY MCDOUGALL



Aldus' President Paul Brainerd said the concurrent release of the illustration program FreeHand (left) and PageMaker 3.0 represents a change in the company's "mission."

"We're broadening from desktop publishing to computer software products for business and creative professionals," Brainerd said.

Aldus is marketing FreeHand, but the software was created by Altsys Corp. of Plano, Texas. Altsys President Jim Von Ehr said the drawing package is both simpler to use and more robust than Illustrator.

"We felt the product was so strong we needed a strong marketing effort to maximize its benefits. We've decided to concentrate on what we do best, which is develop," he said.

See FREEHAND, Page 19

Apple may swap boards to solve NuBus limit

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

CUPERTINO, Calif. — Apple's Mac II Product Manager Mark Orr last week played down the significance of a problem with the computer's handling of NuBus cards and hinted that the issue would be resolved with a logic board swap early in 1988.

The problem came to light in an Apple technical memo, "Designing Cards and Drivers for Macintosh II and Macintosh SE," that was sent to a small group of developers Sept. 1. The memo explains that the Mac II's Slot Manager "will not recognize cards that need more than 1 Mbyte of address space" because it works in a 24- instead of a 32-bit mode.

"We hope to be able to ship [upgrades to] the ROMs by the first quarter of next year," Orr said.

"A logic board swap would be more likely than actually shipping the ROMs to dealers and having them do a ROM swap themselves. There's a high possibility of damaging the ROMs by swapping them. So instead of having dealers do it, we'll change the ROMs on the logic board ourselves," he said.

The availability of the new ROMs reportedly has delayed shipping of the upgrade, which originally had been scheduled for mid-November, according to the memo. The ROMs will cost Apple $20 to $30 each to bring to

See MAC II ROM, Page 19

Mac 68030 accelerator cards coming

Motorola announcement spurs enhancement race

BY CLAIR WHITMER
MacWEEK Staff

SAN FRANCISCO, Calif. — Within a week of unveiling the 68030, Motorola's 32-bit processor, one company has revealed plans for a 68030-based accelerator board, one company has stated an interest in such a product and at least four other companies are saying,"It's a possibility."

T.S.I. of Eugene, Ore., will be releasing a 68030 accelerator board for the Mac 512K, Plus and SE by the second quarter of 1988 "at the latest," according to Robert Bauer, T.S.I. technical manager.

Bauer said the board runs four times faster than the 68020 and sells for $6,000 to $10,000. Despite the high price range, Bauer said he has deposits for the product from seven customers. What makes the board so "phenomenally expensive," according to Bauer, are the memory chips that have to run at 40 nanoseconds to keep up with the processor.

T.S.I. is the marketing end of a two-com-

See ACCELERATOR, Page 19

HANK DELESPINASSE

Apple deals a full house at COMDEX

BY MACWEEK STAFF

LAS VEGAS, Nev. — After a two-year absence, Apple returns to the table this week at COMDEX/Fall '87, but it intends to stand pat.

Although it won't make any product announcements, Apple will showcase work group connectivity and desktop communications at its showroom off the main exhibit hall, a company spokesman said.

Apple brass also are scheduled to put in their 2 cents by participating on panels.

See COMDEX, Page 6

How your Mac family and your 3270 family can be one big happy family.

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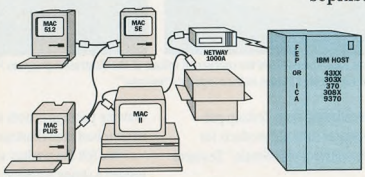

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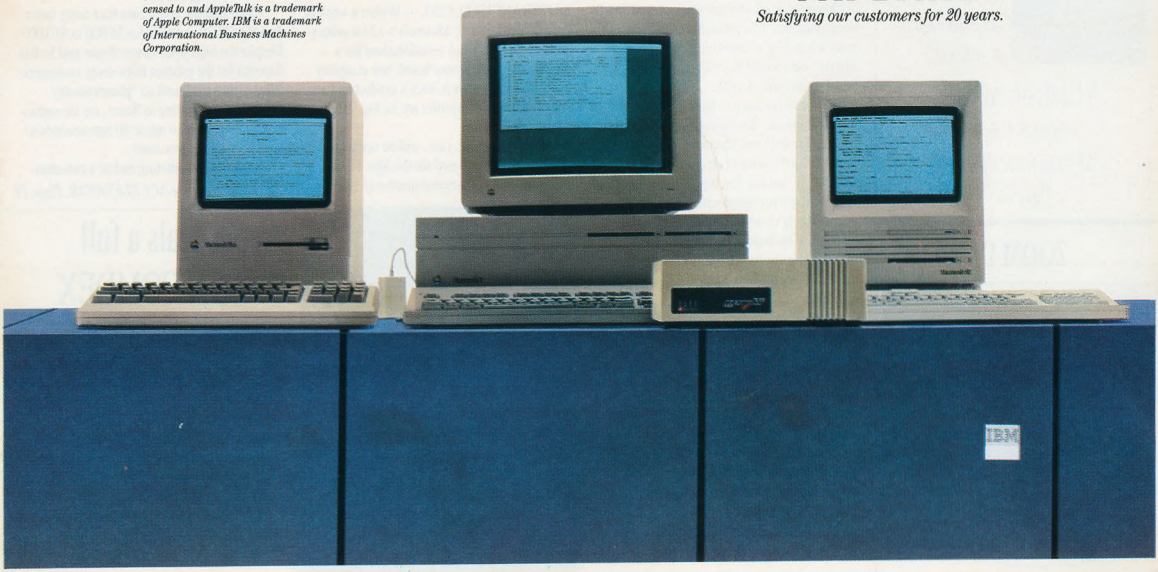

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Sources say Claris to market XPress

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

MOUNTAIN VIEW, Calif. — Claris Corp. of Mountain View, Calif., and Quark Inc. of Denver are said to have signed an agreement Oct. 27, making Claris, Apple's software spinoff, the marketer of Quark's XPress desktop publishing program, according to sources close to the two companies.

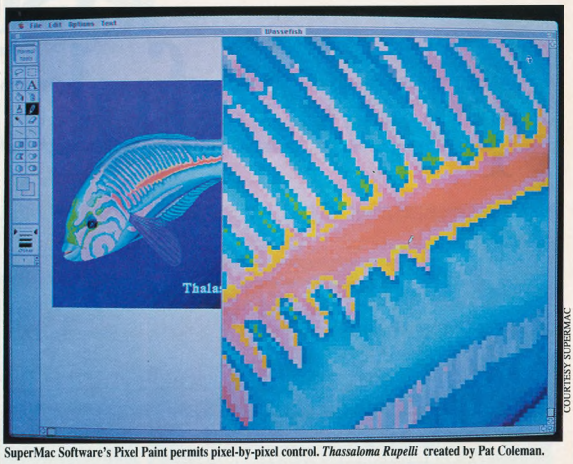
That both companies were working together has been rumored for the past several months. But until last week, Quark principals Phil Harley and Tim Gill consistently denied it.

"We have a good relationship with Apple and Claris," Quark's President Fred Ebrahimi said. "I will not deny that we are working with them and other companies."

Industry analysts agree that the Quark/Claris joint marketing deal would strengthen the positions of both companies.

"Quark is gaining considerable momentum in the desktop publishing world. I see it gaining on PageMaker and Ready,Set,Go!," said Bruce Lupatkin, an analyst at Hambrecht & Quist of San Francisco.

Quark is developing several products, including a color separator program, an XPress-compatible word processor and versions of XPress for the IBM PC and Sun and DEC workstations. ■



COURTESY SUPERMAC

SuperMac Software's Pixel Paint permits pixel-by-pixel control. *Thassaloma Rupelli* created by Pat Coleman.

Pixel Paint to ship this month

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

MOUNTAIN VIEW, Calif. — SuperMac Technology of Mountain View, Calif., will ship its color Pixel Paint software the third week of this month, according to Thomas Reilly, company marketing manager.

The program will be priced at $495 and will include features that have been added to the prototype version of the program demonstrated in August at MacExpo in Boston.

Pixel Paint includes special effects that provide gradiated color; a sophisticated color wheel for blending colors with watercolor effects; color clip art effects to rotate, skew and distort an object; and directional fills to fill in objects with patterns and gradiated colors at arbitrary angles.

An eyedropper tool is used to pick up a color from the color wheel or an image and drop it anywhere on the screen.

Pixel Paint can read MacPaint, PICT I, PICT II and Encapsulated PostScript files. Objects created in VideoWorks II from MacroMind of Chicago can be imported, colorized and exported back to VideoWorks, where they can be animated. A scanned color image can be opened in PICT format in Pixel Paint and painted, manipulated, distorted and skewed, according to Reilly.

The required Mac II configuration for the program includes an 8-bit video card, 1 Mbyte of memory and a monochrome monitor. The program supports the 4369 color thermal printer from Tektronix of Beaverton, Ore.; SlideMaker from Matrix Instruments Inc. of Orangeburg, N.Y.; and the prototype color thermal PostScript printer from Adobe Systems Inc. of Palo Alto, Calif., and QMS Inc. of Mobile, Ala. The software also outputs to the ImageWriter, LaserWriter and Lintotronic phototypesetting systems. ■

Motorola reveals 68040 plans

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

NEW YORK — Motorola of Austin, Texas, announced last week that a next-generation, 32-bit microprocessor, the 68040, is already under development. The company did not disclose specifications of the new processor, which is not yet in beta release.

"The 68040 will have the characteristics that our customers demand: 68000 compatibility, leading performance, 32-bit architecture and a secure supply source," said Murray Goldman, senior vice president and general manager of Motorola's Microprocessor Products Group.

The announcement was made at press conferences held in New York and Santa Clara, Calif., to formally announce the shipment dates and prices of versions of the previous generation Motorola processor, the 68030. John Sculley, Apple president, chairman and CEO, and John Hime, Sun Microsystems' product manager for workstations, spoke in New York about their committment to the 68000 family of microprocessors. "We are impressed with the performance of the 68030, which is twice as fast as the 80386. Apple is committed to the 68000 family. Apple will continue to use the 68020 in 1988 and will use the 68030 in future products," said Sculley.

Motorola said the 16-MHz and 20-MHz versions of the 68030 will ship in volume this week and cost $400 and $550, respectively. The company said it will ship beta versions of its 25-MHz 68030 to developers starting next month.

Motorola specified a Dec. 1 volume ship date for its 68882 math coprocessor, which provides two to four times the processing speed of the previous generation 68881, the coprocessor found in the Macintosh II, Sun, Apollo and Tektronix workstations. ■

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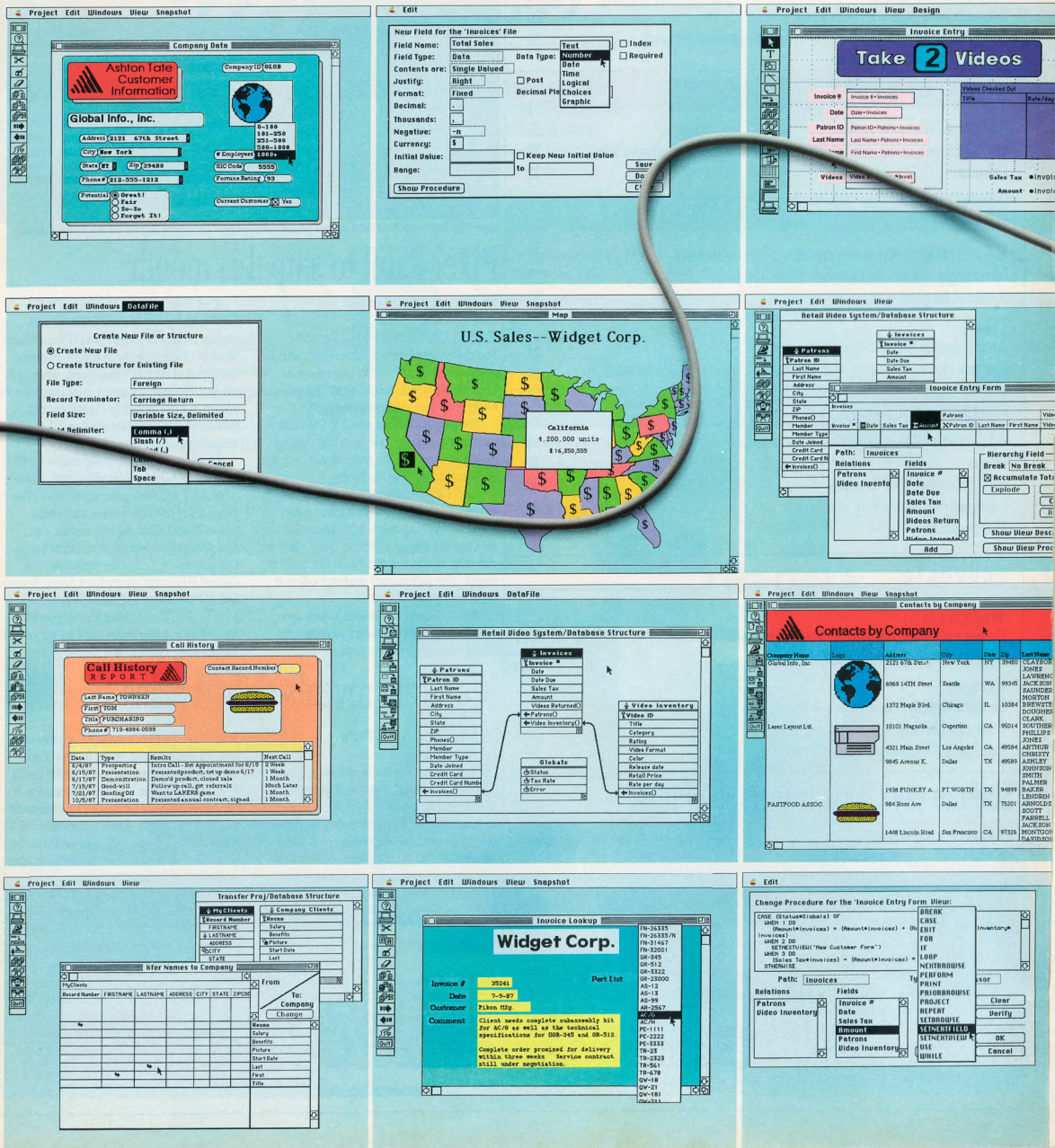

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LASLO VESPREMI/
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PAUL MORRELL

COMDEX

Continued from Page 1

Bill Campbell, Claris Corp. president, and Randy Battat, director of developer services, will discuss Macintosh II architecture. John Scull, manager of business applications, will speak on desktop publishing. And Gurshuran Sidhu, manager of network services, will discuss cost performance issues in LANs.

Apple will showcase more than two dozen third-party hardware and software applications, including the Color Page Layout system from Lightspeed Inc., WordPerfect Corp.'s word processor, Aldus Corp.'s FreeHand drawing program, Lotus Corp.'s Modern Jazz and Dynamac's portable Mac.

About 90,000 people and 1,500 exhibitors are expected to attend what organizers are calling the largest COMDEX/Fall ever.

Even without Apple announcements, the show promises to bear fruit for Apple. A sampling of vendors hedging their technological bets includes:

• Asher Technologies of Roswell, Ga., which will show fax hardware;

• Generic Software Inc. of Redmond, Wash., which will demonstrate computer-aided design and drafting (CADD) software;

• MegaGraphics Images Corp. of Canoga Park, Calif., which will show accelerator boards;

• DEST Corp. of Milpitas, Calif., which will show gray-scale scanners.

A variety of companies plan to unveil new monitors at the show. These include:

• Moniterm Corp. of Minnetonka, Minn., which is debuting the first 24-inch monochrome monitor for the Mac SE and II, as well as a 19-inch color monitor for the Mac II. The Viking 2400 24-inch model for the SE will be available in the first quarter of 1988 and cost $2,995. The Viking 10 19-inch color monitor for the Mac II, already available, costs $4,795.

• Mitsubishi Electronics America Inc. of Torrance, Calif., which will introduce four color monitors that are compatible with the Mac II through cables available from Mitsubishi. The 14-inch AUM1371A-Diamond Scan is available for $889 plus $39 for the cable to connect it to the Mac II. The FHF3500K is a $1,440 15-inch, flat-square monitor for the Mac II. A 19-inch monitor for the Mac II, the C6922AGK, costs $2,980. A 37-inch monitor, the XC3710SS, costs $7,599.

• Taxan USA Corp. of City of Industry, Calif., which is showing four Mac II monitors. The monitors — 770 Plus, 1901, 980 and 870 — range in price from $700 to $3,495.

• Conrac Display Products Group of Covina, Calif., which will show two new versions of its Mac-compatible, 19-inch color monitors. The Model 7250 AutoTrak is a $2,995 multiscanning color monitor. The Model 7351, priced at $3,495, offers resolution of up to 1,024 by 768 pixels and 256 on-screen colors.

• Micro Display Systems Inc. of Hastings, Minn., which is scheduled to introduce the 15-inch MacGenius, which runs on the Mac 512K through SE. The 100-dpi monitor costs $1,795 and will be available this month.

Other companies at COMDEX will include:

• Texas Instruments Inc. of Dallas, which will introduce the TI OmniLaser 2106 PostScript laser printer for less than $5,000. The 300-dpi printer is compatible with all Mac models and other computer systems. It ships this month.

• Brother International Corp. of Piscataway, N.J., which will show its HL8 laser printer. The 300-dpi printer will sell for $2,695.

• Sofha of Berlin, which will show a PostScript-compatible controller called SofhaScript. The clone will be demonstrated on both 400-dpi and 600-dpi laser printers.

• Software Research Technologies of Irvine, Calif., which will show a $69.95 hard disk organizer called MacTree. The product is scheduled to ship Nov. 15. ■

TOPS ships program linking Sun workstations to Macs, PCs

BY JON SWARTZ
MacWEEK Staff

LAS VEGAS, Nev. — In other COMDEX/Fall '87 developments, TOPS of Berkeley, Calif., this week began shipping TOPS/Sun Workstation, a program that links UNIX-based Sun workstations to Macs and personal computers using TOPS' distributed file server network.

TOPS also introduced Version 2.0 of its TOPS LAN software package and an upgrade of the TOPS Print program released a year ago.

The product onslaught in conjunction with COMDEX is TOPS' largest since it was acquired by Sun Microsystems Inc. of Mountain View, Calif., in April.

According to Timothy C. Fredel, TOPS' Macintosh product manager, TOPS/Sun Workstation lets Sun machines emulate TOPS network file servers, allowing Macs, IBM PCs and IBM compatibles to have transparent access to large-capacity disk storage, high-volume backup functions and UNIX.

TOPS/Sun Workstation comes in 0.5-inch tape reels and 0.25-inch tape cartridges. The product, available directly from TOPS, costs $895 to $2,495, depending on configuration.

A TOPS spokeswoman said Version 2.0 of its TOPS LAN software packages for Macs and PCs will be available this week. TOPS is the only distributed file server LAN that allows transparent file sharing among Macs, IBM PCs and compatibles, and UNIX-based systems.

TOPS/DOS 2.0, priced at $189, includes FlashTalk, a previously announced architecture that lets PCs communicate at 770 Kbits per second, or three times normal AppleTalk speed. It requires TOPS' $239 FlashCard.

The $189 TOPS/Macintosh 2.0 is compatible with all Apple File Protocol applications. It includes a new feature called "Remember" that lets users automatically access remote files and makes them available to the network.

A TOPS spokeswoman said a software upgrade of TOPS Print, called TOPS Netprint 2.0, will ship Nov. 13. The $189 package lets IBM PCs and compatibles print directly to LaserWriters or other PostScript-compatible printers on an AppleTalk network. ■

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Ion-deposition OEM printer released by Delphax

BY CLAIR WHITMER
MacWEEK Staff

RANDOLPH, Mass. — Eager to be included among the growing ranks of laser printer manufacturers, Delphax Systems has released its high-volume ion-deposition printer for OEM inspection.

Ion printing has been a low-profile technology despite similar products from the Randolph, Mass., company in the past. But in several report excerpts circulated by the company with its product information, analysts say that the technology is a viable alternative to laser printers, particularly in the demand publishing market.

"Ion-deposition technology has a definite advantage in meeting the higher-speed printing requirements over its rivals, the electrophotographic machines. Delphax has vast opportunities in the demand publishing segment, where speed and low operation cost are primary factors," said Ajit Kapoor of Dataquest, a market research firm in San Jose, Calif., as quoted by Delphax in its product literature.

Delphax has patented the ion-deposition printing method of its non-impact printers; the images are generated by fixing toner to an electrostatic image formed on the drum with charged particles.

The company's newest release, the S3000G, is now waiting out its adolescence until the approval of an OEM gives it marketing maturity.

The Delphax S3000G ion printer boasts an output speed of 30 pages per minute and a RIP controller that emulates the LaserJet Plus and Diablo 630 printer command languages. The printer follows the industry trend of providing resolution of 300 dpi by 300 dpi.

With the motherboard built around an Intel 80286 microprocessor, the printer would cost between $20,000 and $25,000, positioning the product for the large corporation, high-volume environment, predicted Steve Guthrie, a Delphax representative.

The marketing plan is to target laser xerography printers as competitors in terms of price and reliability.

The printer has a monthly duty cycle of 250,000 pages, according to the company.

Because of its sophisticated RIP controller, the company is promoting the printer as being well-suited for applications where text and graphics are combined.

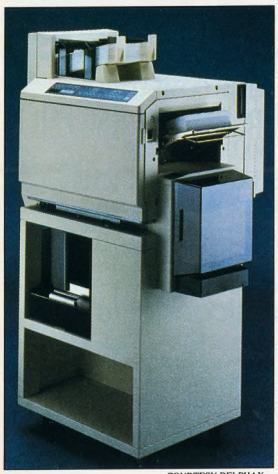
The S3000G is being held exclusively for the OEM marketplace, and so far no one has come forward to pick up the product. But the company has been aggressively pursuing potential OEMs through shows such as the recent CAP International Electronic Printer Conference.

Guthrie said that the machine shows potential, particularly for Macintosh users since "anyone in the graphics world would be interested in this printer."

Delphax is promoting the open architecture capabilities of the S3000G, saying that the printer can interface with nearly all industry vendors.

Delphax Systems is located at 35 Pacella Park Drive, Randolph, Mass. 02368; (617) 961-2312. ■

Delphax's newest release, the S3000G ion printer, is targeted at high-volume corporate environments. The printer boasts an output speed of 30 pages per minute.



COURTESY DELPHAX

The newsletter of personal money management
THE PRUDENT Investor
Vol. V No. 2 July 1987
Time to Return to Gold?
There's probably no better hedge against inflation. Gold is the internationally recognized medium of exchange. It's completely portable. And, unlike paper money, it has inherent value. But is it for you?
In times of economic or political turmoil people turn again and again to gold. That's what makes gold prices go up in times of inflation. And why gold moves up when world peace is threatened.
As an investor, you have five basic ways to purchase gold.
1. Gold futures, like all futures contracts, are basically closed-ended speculations intended for sophisticated traders.
2. Gold stocks. Shares in mines are traded on all major exchanges. Some, especially South African mine shares, pay substantial dividends. (This is due to the volatile political situation there.)
3. Gold bullion can be bought at all large brokerage houses. These firms also store and insure bullion.
continued on page 12
Technical Analysis: Science or Sorcery? See page 6
Picking Your Stockbroker
If you happen to be picking a stockbroker for the first time, a good way to begin is with some solid recommendations.
Ask your lawyer, accountant, or banker for the name of a stockbroker, or a brokerage firm, that could take on your account.
Some investors suggest you choose several brokers at different firms and let each handle a part of your portfolio until you decide on the right one.
The broker you choose should have a philosophy about investment that is as close as possible to your own. Find out how he
continued on page 5
The Rising Fortunes of the Humble Apple
Consumer demand has mushroomed in recent months for fresh fruit and produce.
What are the best plays in this trend for investors?
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Avoiding Wall Street's blind alleys: A Prudent Investor Special Report. See p. 9
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Commodities
NYSE
OTC Stocks
Real Estate 14
Special Report 8
Technical Analysis 13
Treasury Issues 12

To the thousands of Macintosh™ users who find themselves wishing there was a personal printer that lived up to their personal computer.

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This arrangement also means the PLP is much more compact than other laser printers. (An almost diminutive 16″ x 16½″ x 9″.) And having fewer and simpler parts, much less likely to need repairs.

THE PROOF IS IN THE PRINTING.

As you can see, a case could easily be made for buying the PLP on economics alone. But that would be selling it short.

Because the ultimate measure of any laser printing system

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©1987 General Computer Corp. The General Computer logo is a registered trademark of General Computer Corp. Personal LaserPrinter and PLP are trademarks of General Computer Corp. Microsoft is a registered Apple Computer, Inc. Manufacturer's suggested retail price: $2599. For dealer inquiries call (617) 499-4961 or (617) 499-4952. The documents above were created with PageMaker 1.2.

CD-ROM technology may transform the on-line industry

BY EMILY BROWER
MacWEEK Staff

ANAHEIM, Calif. — Although ONLINE '87 followed previous formats, changes that may have a widespread effect rumbled through the gathering of this insulated on-line community.

The annual conference, held in Anaheim, Calif., Oct. 20-22 and attended by more than 1,000 commercial database users and several hundred commercial database vendors, featured trade exhibits, forums and innovations in the on-line industry.

Traditionally, information from on-line services has been disseminated to users by librarians or researchers trained in searching commercial databases. Technological innovations, such as CD-ROM and integrated searching software, may eliminate this middle person and make on-line searching directly accessible to the information seeker.

"Librarians tend to view themselves as the high priestesses and keepers of on-line information. They need to change their attitude and work to make information more accessible to the end user," said Monica Ertel, manager of Apple's library and information services.

Several new product demonstrations and introductions at ONLINE '87 reflected the current focus on CD-ROM and user solutions, but Macintosh versions of these products are still in the development stages.

There is only one commercial CD-ROM disc for the Mac, and users probably can't expect more until Apple ships its own CD-ROM player and driver for the Macintosh. Aries Systems Corp. of North Andover, Mass., has published a CD-ROM version of Medline, a medical information database.

The advantages of CD-ROMs are in cost savings and accessibility. The large sum paid up front for a database on CD-ROM can be much less than a year's worth of on-line costs and access fees. In addition, because on-line costs are eliminated and searches are performed locally or off line, less sophisticated searchers can use the database without incurring on-line charges.

Database vendors are developing their own solutions. Mead Data of Dayton, Ohio, producer and vendor of Nexis/Lexis, a legal, business and general information database, is working on PC and Mac versions of front-end software for searching its databases, said a Western account representative from the company.

With integrated searching programs, or front ends, users formulate their search requests off line and then let the software connect with the database. Users can bypass complicated search and log-on protocols with software dedicated to searching specific databases.

Other third-party developers, such as Personal Bibliographic Software Inc. of Ann Arbor, Mich., are developing Macintosh products for CD-ROM and integrated search technologies.

"We are working toward building a research workstation with our software," said Victor Rosenberg, president of Personal Bibliographic Software. The company plans to release its database software, Pro-Cite, and its search and communications package, Pro-Search, in Mac versions early next year.

Also coming next year is the Serial Port Tool Kit, Apple's tool kit for HyperCard that can be used to write front ends for searching on-line databases. ■

FOR THE RECORD

An article titled "Updating Mac II compatibility" (MacWEEK, Oct. 20) contained several inaccuracies. The Macintosh Programmers Workshop was misidentified as Microsoft Programmers Workshop and Apple's MacsBug, misspelled as MACSBug, was not developed by Corvus Systems Inc. Version MacIIBug 5.3 of MacsBug no longer exists. The correct version is MacIIBug 5.5.

In the Oct. 27 issue, a headline describing the first PostScript printer using the new Canon SX engine from QMS Inc. of Mobile, Ala., should have read "QMS PostScript printer uses Canon SX engine."

In the same issue, a Snapshot story titled "QMS ships laser printer for bit-mapped, complex graphics," incorrectly stated that QMS' Lasergraphix 1510 laser printer includes either a resident Tektronix 4010/4014 emulation or QMS' proprietary text and graphics print language, QUIC, for outputting vector or bit-mapped graphics. In fact, the printer uses both. ■

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2. Gold stocks. Shares in mines are traded on all major exchanges. Some, especially South African mine shares, pay substantial dividends. (This is due to the volatile political situation there.)

3. Gold bullion can be bought at all large brokerage houses. These firms also store and insure bullion.

continued on page 12

'85 '86 '87 — Jan. Feb. Mar. 10 20 30 40 50 60 70

Technical Analysis: Science or Sorcery? See page 6.

Picking Your Stockbroker

If you happen to be picking a stockbroker for the first time, a good way to begin is with some solid recommendations.

Ask your lawyer, accountant, or banker for the name of a stockbroker, or a brokerage firm, that could take on your account.

Some investors suggest you choose several brokers at different firms and let each handle a part of your portfolio until you decide on the right one.

The broker you choose should have a philosophy about investment that is as close as possible to your own. Find out how he

continued on page 5

The Rising Fortunes of the Humble Apple

Consumer demand has mushroomed in recent months for fresh fruit and produce.

What are the best plays in this trend for investors?

Dr. Vic Scallione, of the Washington State Department of Agriculture says

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Avoiding Wall Street's blind alleys: A Prudent Investor Special Report. See p. 9

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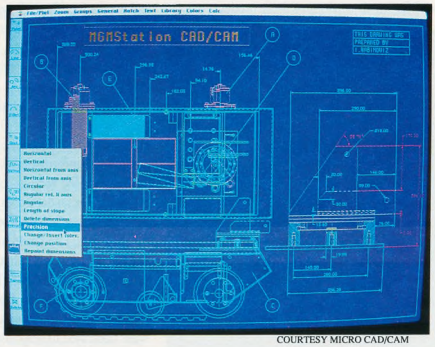
SNAPSHOTS

MGMStation CAD software update

VAN NUYS, Calif. — Micro CAD/CAM Inc. has released Version 2.09 of its MGMStation CAD software and Version 2.0 of its MGMS IGES translator for the Macintosh.

New features of MGMStation 2.09 include user-definable default settings and added text editing functions. The size of drawings created with Version 2.09 are restricted only by the available disk space. Current users can purchase the update for $30. The program costs $799.



COURTESY MICRO CAD/CAM

Version 2.0 of MGMS IGES for the Macintosh allows users to translate 3-D drawing files from mainframe- and mini computer-based CAD systems such as CADAM, CATIA and Computervision.

MGMS IGES interprets a database of 3-D images created on these high-end systems and generates a two-dimensional database of images that can be used with MGMStation CAD for the Mac. MGMS IGES costs $500, and current users will not be charged for the upgrade.

Micro CAD/CAM Inc. is located at 5900 Sepulveda Blvd., Suite 340, Van Nuys, Calif. 91411; (818) 376-0008.

Computerized AP Stylebook

PARSIPPANY, N.J. — A computerized version of The Associated Press Stylebook has been announced by Digital Learning Systems. KeyNotes AP Stylebook, produced under license from The Associated Press, is available in both Mac and MS-DOS formats.

KeyNotes AP Stylebook is designed to be a memory-resident utility that is instantly available from within all Mac word processors, giving users access to AP's reference and style guide. A search mode automatically zeros in on the appropriate section, the company said.

"The KeyNotes AP Stylebook joins the KeyNotes Writer's Handbook to form the nucleus of what will become a complete library of on-line reference materials," said Robert Stoeber, president of Digital Learning Systems. "Our goal is to provide today's computer users in a broad range of fields with the tools they need to make the most efficient use of their computer time.

"Registered owners of the program will be able to request periodic updates," he said.

The Keynotes AP Stylebook retails for $49.94, and the Keynotes Writer's Handbook retails for $29.95. Both programs can be ordered directly by calling (800) 992-0264.

Digital Learning Systems is located at 4 Century Drive, Parsippany, N.J. 07054; (201) 538-6640.

Tallgrass tape backup compatible with Apple's 40SC

OVERLAND PARK, Kan. — Tallgrass Technologies Corp. is shipping a tape backup unit compatible with Apple's 40SC backup. The TG-4040 backs up data twice as fast and is $300 cheaper than Apple's unit, according to Tallgrass.

The $1,195 TG-4040 backs up data at the rate of 2 Mbytes per minute in the QIC-100 data format on 3Com's DC-2000 data cartridge, the same as the Apple product.

The TG-4040 will be able to read tapes from Apple drives, but Apple drives will not be able to read tapes from the TG-4040, the company said. The TG-4040, which connects to a Mac Plus, SE or II through the SCSI port, can be purchased with an optional 40-Mbyte hard disk that has an average access time of 29 milliseconds for $2,595.

Tallgrass Technologies Corp. is located at 11100 W. 82nd St., Overland Park, Kan. 66214; (913) 492-6002.

COURTESY TALLGRASS

New version of Aatrix Payroll

GRAND FORKS, N.D. — Aatrix Software has released Version 2.0 of Aatrix Payroll. In the new version, FICA, federal, state and local taxes are automatically calculated, accumulated and deducted. Reports include "End of Payroll," "Quarterly" and "Year End."

The user can enter and update tax tables for both federal and state taxes. Tax formulas also can be entered and used for calculating state and local taxes. Current federal tax tables are included with the program.

Other features include password protection and customized paycheck printouts. Users can redesign and print W-2 forms as year-to-year changes in the forms occur.

Retailing for $99, Aatrix Payroll runs on all Macs with 512 Kbytes or more of memory and two floppy disk drives or a hard disk.

Aatrix is located at 405 Bruce Ave., Grand Forks, N.D. 58201; (701) 746-7202.

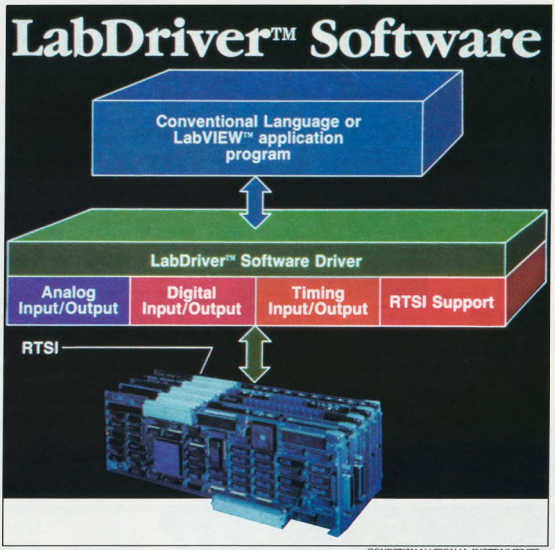
LabDriver software for data acquisition, analysis

AUSTIN, Texas — National Instruments has announced Mac II software for acquiring and analyzing data. LabDriver supports the National Instruments NB series of plug-in data acquisition boards and provides a high-level programming interface designed for developing applications.

The LabDriver library of driver routines can be called from common programming languages, providing support for analog-to-digital conversion, digital-to-analog conversion, digital input and output, timing input and output, direct memory access, and operation of the National Instruments Real-Time System Integration bus. The RTSI bus augments the Mac II's NuBus architecture with measurement-oriented timing and control, allowing complex system-level measurements that have not been previously possible on a personal computer, according to the company.

LabDriver may be installed as part of the Mac operating system. It then can be accessed directly from any language that supports standard Toolbox device manager calls. Language interface libraries are included for Lightspeed C, MPW C and MS BASIC. LabDriver sells for $295.

National Instruments is located at 12109 Technology Blvd., Austin, Texas 78727-6204; (512) 250-9119.



COURTESY NATIONAL INSTRUMENTS

HyperTutor stack teaches novice programmers HyperTalk

KENTFIELD, Calif. — Teligraphics is shipping HyperTutor, a HyperCard stack designed to teach beginning programmers HyperTalk, HyperCard's built-in programming language.

HyperTutor uses an interactive training method to teach the basics of HyperTalk in a step-by-step fashion using frames. Each frame gives the users an instruction or an exercise to be performed. At the end of each lesson, the user has the option of moving to the next lesson or clicking a button for more in-depth information. There are periodic quizzes throughout the stack.

HyperTutor is available directly from Teligraphics for $49. A demonstration version is available on GEnie and CompuServe electronic information services.

Teligraphics is located at 936 Sir Francis Drake Blvd., No. R, Kentfield, Calif. 94904; (415) 454-7519.

Investment software could have predicted market crash

BY CLAIR WHITMER
MacWEEK Staff

MESA, Ariz. — If you had been using investment software from Pro Plus Software on Oct. 7, you might have saved your investment shirt on Oct. 19, the day the market came tumbling down.

Or so said Mark Schofield, president of Pro Plus of Mesa, Ariz., and a former stockbroker. He started advising people to sell as long as a month ago, based on analysis done with Market Pro, his company's software product. And according to Schofield, the program itself sounded the sell bell Oct. 7.

Although he acknowledges that the brand of the computer used has no direct result on the success or failure of a stock portfolio, Schofield said good investment software can be a fortune-saving tool.

Schofield promotes Market Pro, soon to be renamed WallStreet Investor, as the best available program because of its integration of fundamental and technical analysis with portfolio information.

Both Version 2.0 Market Pro and a new program, Market Pro Advanced, will be released before the end of the year, according to Schofield.

> Although Mark Schofield acknowledges that the brand of the computer used has no direct result on the success or failure of a stock portfolio, he said that a good investment software package can be a fortune-saving tool.

The $495 program can maintain detailed records of securities and transactions within eight separate reports, such as Cash Flow Analysis and Appraisal Summary. The Fundamental Analysis report lists more than 100 categories of current financial information for more than 11,000 companies through the I.P. Sharp Database.

The third section of the program calculates 11 trend charts based on more than 17,000 stocks, 200 market indicators, options, mutual funds and bonds available on all major U.S. exchanges. Schofield based his decision to sell on data from this section of the program.

"If [investors] were following Market Pro and interpreting the market studies as they should, they would have saved themselves a lot of grief," Schofield said.

In fact, one broker for Dean Witter Reynolds in New York did exactly that and is now sitting in his office and "picking off some excellent bargains," Schofield said.

John Maxwell of Dillon Reed, an investment banking firm in New York, is such an enthusiastic user that he accepted an invitation to join Pro Plus' board of directors. Citicorp of New York is considering using the program as one of its investment tools, Maxwell said.

The Macintosh platform is particularly appropriate for investment software because of its ease of training and superior graphics for investment charts and graphs, according to Schofield.

Terry Jeffers of Jeffers Corp. in Pleasanton, Calif., agreed that the type of computer used is less important than the skills and knowledge of the user. "But when you use a computer, you're more likely to do [the analysis]. It's a disciplinary tool," he said.

His company provides training and systems advice to investors. He and co-author Chris Osorio also wrote "The Computerized Investor," and he said proudly that Osorio advised investors to sell on the Wednesday before Black Monday.

Jeffers said individual investors who use computerized investment tools tend to feel more confident about their analyses and act on them more decisively.

"The people who are using the computers are feeling much more comfortable with their environment. We've seen an incredible rush of interest" about investment systems since Oct. 19, he said.

As an interesting corollary to the situation, Jeffers said Mac users are more likely to use investment software and advice tools because they have more fun with their computers. ■

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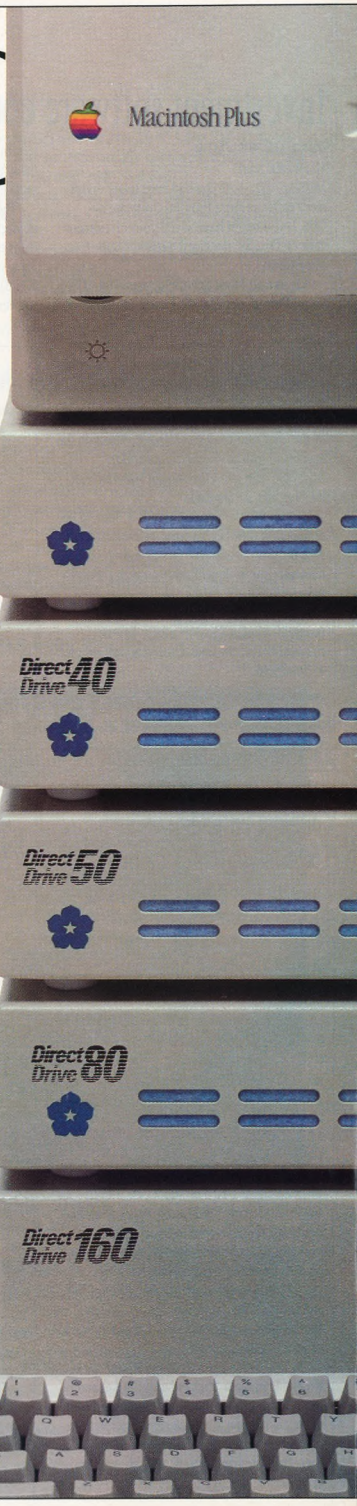

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– InfoWorld June 29, 1987

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– MacWorld July 1987

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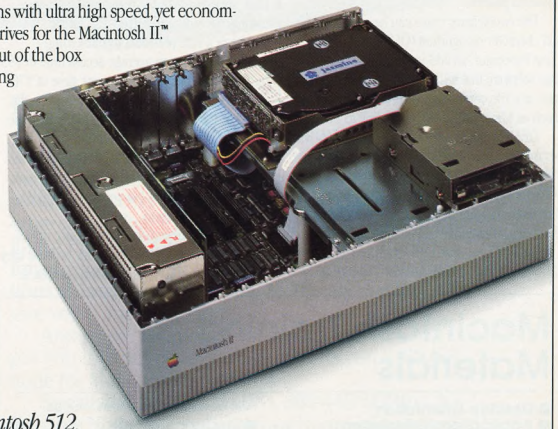

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555 De Haro Street, San Francisco, CA 94107

DEST markets two gray-scale scanners

BY JIRI WEISS
MacWEEK Staff

MILPITAS, Calif. — DEST Corp. will join other manufacturers offering gray-scale capability when it ships two new scanners this month.

The company's new, $1,695 desktop PC Scan 1000 flatbed scanner is capable of scanning 16 levels of gray at a resolution of 300 dpi. The $1,495 PC Scan 2000 sheet-feed scanner offers 8-bit gray scale at 256 levels. PC Scan 1000, which is 14-1/2 inches wide, 21-5/8 inches deep and 3-7/8 inches high, will scan a page in 20 seconds. An optional $595 automatic document feeder will handle up to 20 pages.

PC Scan 2000 will scan up to a legal-size page with resolutions of 38 to 300 dpi. It takes the scanner as little as nine seconds per letter-size page, according to DEST.

At 16 inches wide, 11-1/2 inches deep and 4 inches high, the PC Scan 2000 fits under a Macintosh on the desk. A $695, 35-page sheet feeder is optional.

"If you are doing magazine-quality photographs, you need the 2000. But for desktop publishing, if the output is a laser printer, then you probably don't need the 8-bit technology," said Jack Strange, DEST's director of marketing. For the scanner's gray-scale capability, users must buy the $495 Publish Pac software, which will scale images anywhere from 13 percent to 200 percent and print halftones in four dithered patterns.

The two scanners also can be used for optical character recognition (OCR) with a $995 Text Processor, an add-in board and $495 Text Pac software that will output the interpreted text in a file compatible with word processors such as Microsoft Word, according to Strange.

DEST's pattern-matching OCR system will recognize LaserWriter, dot matrix and daisy-wheel text with 99.9 percent accuracy, but it will not typeset fonts with ligatures, said Strange. "A wide variety of fonts can be read, but the accuracy rate can change," he said.

DEST Corp. is at 1201 Cadillac Court, Milpitas, Calif. 95035. (408) 946-7100. ■

WORM drive is machine independent

Optotech's drive stores 200 Mbytes or 400 Mbytes

BY JIRI WEISS
MacWEEK Staff

COLORADO SPRINGS, Colo. — A 5.25-inch optical WORM disk drive that can be used interchangeably on a wide variety of workstations will debut at COMDEX/Fall '87 in Las Vegas, Nev., this week.

In addition, a jukebox-like autochanger for the drive will give users the potential to store up to 26.4 Gbytes of data for about 62 cents per megabyte, according to Optotech Inc., the drive's manufacturer.

The $3,995 Laser DataBank stores data on a 5.25-inch WORM (write-once-read-many) disk with a capacity of 200 Mbytes (single sided) or 400 Mbytes (double sided). The drive can be used with the Macintosh SE and II; the IBM PC and XT; 80286 and 80386 microprocessor-based computers, including the PS/2; the Sun-3 workstation from Sun Microsystems Inc.; and the MicroVAX II from Digital Equipment Corp.

"It's an astonishing development," said Abigail Shaw, a senior industry analyst with Rothchild Consultants, a San Francisco optical memory consultancy firm. "The fact that they can cross operating system lines increases functionality of the hardware and increases the potential for volume manufacturing."

Laser DataBank is intended for vertical market applications, especially in graphics-intensive areas that require storage of large files, such as CAD, CAE and desktop publishing, according to Jeffrey R. Dulude, Optotech's vice president of marketing.

The drive has an average access time of 195 milliseconds and an average seek time of 170 milliseconds. In practical terms, however, the speed of the drive is not much slower than the Mac SE's internal 20-Mbyte drive, according to Dulude. "If you look at a 20- or 30-Mbyte partition about the size of an SE internal disk, you are talking about [an access time of] 35 milliseconds," he said.

"The early objection to write-once drives was that software would not work because they required erasability," said Robert Gaskin, a senior industry analyst with Dataquest of San Jose, Calif. Optotech has overcome that objection by writing drivers that work with applications like a hard disk even though nothing on the disk actually can be erased, he said.

Users can see a directory of the disk as it was at any point in the past with a utility called Time Travel, according to Dulude. Significant changes can be labeled for future reference.

The permanence of the media is another advantage for users, said Dulude. "The metal film used in the disk will store information for 10 years, compared with the two- to three-year storage time of a floppy," he said.

The WORM disks themselves will be available from Optotech in two versions — a 200-Mbyte single-sided version for $65 and a 400-Mbyte double-sided version for $125.

The self-configuring subsystem connects to the Mac's SCSI port and runs under Macintosh Finder 5.0 with System 3.2. Up to four drives can be daisychained to one Mac.

Laser DataBank for the Macintosh will ship in December. Versions of the drive for Sun and VAX machines will ship in January for $5,950 and $6,950, respectively. The drive has been available for about a year for the IBM PC; that version costs $2,995, according to Optotech.

Optotech also is introducing Optofile, a jukebox-like autochanger based on the same drive. Optofile can handle up to 66 400-Mbyte disk cartridges, a total of 26.4 Gbytes of storage. Optofile costs 62 cents to store 1 Mbyte of memory in comparison with hard disks that cost $7 to $20 per megabyte, according to the company. It takes Optofile's robot arm an average of 10 seconds to change disks.

The jukebox, which can be used on a network as a server, will be available in several configurations to OEMs starting in the first quarter of 1988.

An entry-level OEM system, with one drive and one disk, will cost $9,950.

Optotech Inc. is located at 770 Wooten Road, Colorado Springs, Colo. 80915; (303) 570-7500. ■

Upgrade to Fastback released

BATON ROUGE, La. — Fifth Generation Systems, developer of Fastback for the Mac, has announced an upgrade to its recently released backup software described in MacWEEK's review of the product (Page 51). In a shift from previous plans, the company will send Version 1.02 of Fastback automatically to registered users, free of charge. Shipping is set to begin this week. The new release will eliminate several minor problems in the original version. If the program encounters a defective floppy disk while copying files from a hard disk, it no longer will abort the entire operation. Instead it will ask the user to insert a different floppy, according to the company.

Fifth Generation Systems is located at 11200 Industriplex Blvd., Baton Rouge, La. 70809; (714) 553-0111 ■

TCP/IP network links Ethernet to StarLAN

BY JON SWARTZ
MacWEEK Staff

MUNICH, West Germany — Half a world away in this historic city, amid bratwurst and beer halls, communications history was made.

Western Digital Corp. and CrossComm Corp. demonstrated a TCP/IP network that for the first time lets Ethernet and StarLAN local-area networks operate together.

The companies also showed the first commercially available (TCP/IP) Transmission Control Protocol/Internet Protocol product that operates with StarLAN.

Apple, in turn, may make history of its own in the TCP/IP market. The company is expected to announce as early as December that it is developing TCP/IP software for the Mac.

TCP/IP, a set of networking protocols that links computers from multiple vendors, has been adopted as a networking standard in government, academic and technical computing environments.

These networking firsts occurred last month at the Systems '87 Computers and Communications Trade Fair in Munich. Approximately 35 vendors attended the TCP/IP pavilion at the show.

"This is a panacea for TCP/IP," said Daniel Lynch, president of Advanced Computing Environments, a Cupertino, Calif., consulting firm specializing in multivendor networking. The demonstrations "open all sorts of doors."

Western Digital announced that TCP/IP software for its Ethernet and StarLAN communications adapters is now available, according to Cynthia Magidson, Western's marketing manager, who attended the show.

Western's StarLAN and Ethernet communications adapters were connected to Ethernet on the demonstration TCP/IP network via CrossComm's 487 Series (LAN) Bridge.

The products mean new flexibility for LAN users, said Tad Witkowicz, CrossComm president.

Personal computer users who have StarLAN on ordinary telephone wiring now have access to minicomputers and workstations operating on Ethernet, he said.

TCP/IP interoperability has become a "hot" protocol, according to Brad Baldwin, telecommunications analyst at Dataquest, a market research firm in San Jose, Calif. "Everyone is jumping on the bandwagon," he said.

Last month, IBM and Novell Inc. of Provo, Utah, became the latest vendors to enter the market.

IBM revealed plans to develop a TCP/IP link to its Systems Network Architecture network, while Novell and TCP/IP specialist Excelan Inc. of San Jose announced a joint marketing agreement to connect Novell's NetWare network operating software to Excelan's TCP/IP-Ethernet products for PC-DOS environments.

The joint development, called TCP/IP Workstation, will cost $995 and be sold through Excelan distributors starting in December. ■

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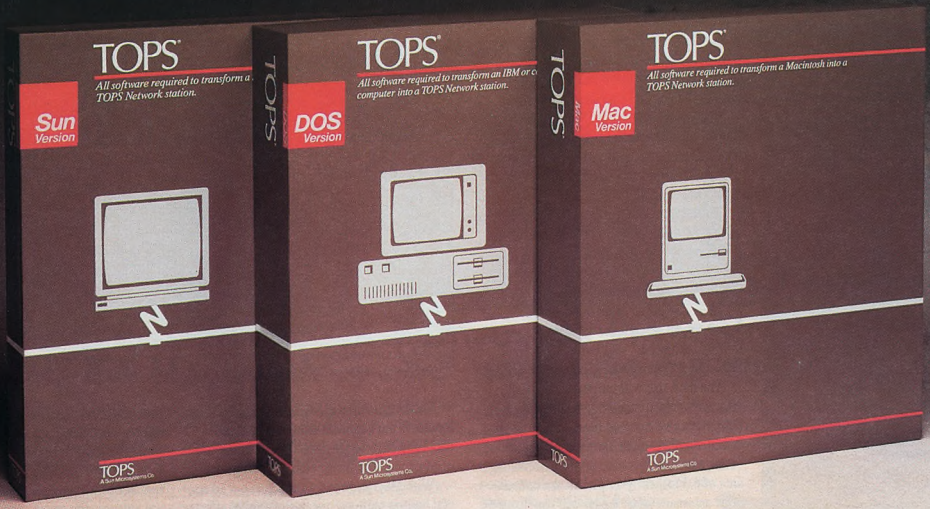
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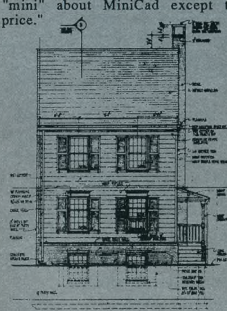

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Datacopy brings gray scale to its scanners

Corporate, professional markets targeted

BY JIRI WEISS
MacWEEK Staff

MOUNTAIN VIEW, Calif. — Datacopy Corp. recently joined the scanner manufacturers who offer gray-scale capability, a way of storing images that improves editing and the quality of computer-produced halftones.

Datacopy announced three gray-scale scanners for halftone reproduction for the corporate and professional desktop publishing marketplace. An upgrade to its existing scanner software will bring optical character recognition (OCR) and gray scale to its current users.

Datacopy's $2,800 ProScan Model 830 flatbed scanner scans at 300 dpi with up to 64 levels of gray. The 8-bit, $4,800 ProScan Model 840 brings the resolution up to 400 dpi with 256 levels of gray.

To speed up image processing, the high-end $8,995 840i includes a programmable image-processor board with a Motorola 68000 microprocessor controlling three pipelined NEC 7281 chips and 3 Mbytes of RAM.

"You can get an order of magnitude improvement on complex images over doing things in software," said James P. McNaul, Datacopy vice president of strategic planning.

The 840i also will turn halftones back into gray scale, a capability that allows halftones to be prepared from previously screened images such as magazine photos.

All three models have an image-scanning area of 8.5 inches by 11 inches. An optional $500 automatic sheet feeder will handle up to 30 legal-size pages at a time.

The 830 is intended for the desktop publishing market. Both 840 models are suited more for the OEM and professional markets. "The 830 is about all you need for the reproduction of photographs if you are not going to do a lot of scaling," said McNaul.

All three scanners are available in small quantities immediately, according to the company.

All Datacopy scanners, from the existing $1,800 Model 730 and $800 sheet-fed JetReader to the high-end 840i, will be able to take advantage of gray scale with Version 2.0 of MacImage, an image editing package.

COURTESY DATACOPY

Datacopy has released three new scanners that offer gray-scale capabilities. The peripherals are intended for corporate and professional desktop publishers.

With MacImage users can select one of several built-in halftone screens for special effects or construct their own. They can adjust brightness, contrast and the weight and intensity of the gray-scale information to increase definition in a particular part of the picture, a process called gamma correction.

MacImage also will create, invert and mirror images. More sophisticated users can manipulate the image and even get a numerical representation of the picture, according to McNaul.

But users don't need to be experts to create with MacImage, McNaul said. The program can be operated at three different levels of sophistication. At the basic level, users can have in-house graphics: professional preset templates with all the filter levels for line art and photographs.

Charles R. Joseph, vice president of sales and marketing, said that "85 percent to 95 percent of the market will be interested in this level."

MacImage will store images in 13 different file types including PICT, TIFF, Compressed TIFF and RIFF. Unlike most scanners that send Encapsulated PostScript files to the printer, MacImage sends a binary file. This speeds up image output and means that halftones can be

See DATACOPY, Page 18

Novell joins Mac connectivity market with Pcox line for Mac II

BY JON SWARTZ
MacWEEK Staff

PROVO, Utah — Novell Inc. entered the Macintosh connectivity market last month by announcing micro-to-mainframe software and hardware for Mac II users.

The local-area network company introduced products — Pcox/Coax-M, Pcox/Multi-M and Pcox/3270 SR-M — that connect Mac IIs with IBM and IBM-compatible host computers.

The products are being demonstrated this week at COMDEX/Fall '87 in Las Vegas, Nev.

"The Mac II is now a recognized force in the corporate microcomputer world," said Philip M. Lumish, president and general manager of Novell's Communications Products Division in Mountain View, Calif. "We think it's crucial to expand the Pcox connectivity line to Mac IIs."

Novell's newest offerings let Mac IIs emulate IBM 3178 and 3179 computers, as well as IBM 3278 and 3279 terminals.

Pcox/Coax-M is a coaxial interface board that works with Mac II NuBus architecture. It contains an 80186 microprocessor with 512 Kbytes of memory.

According to Novell, Pcox/Coax-M architecture provides a high-performance environment for 3270 terminal emulation software. The board costs $545.

Pcox/Multi-M emulation software, priced at $675, works with Pcox/Coax-M, so users can access up to five concurrent host sessions through the Mac user interface. The software includes an operating environment for the Pcox/Coax-M board that has a subset of MS-DOS functions.

Pcox/3270 SR-M is a $100 file-transfer package for the exchange of binary or text files between IBM host computers and Mac IIs.

Each product will be available through Novell distributors at the end of the month.

Novell is preparing its NetWare network operating system for use on the Mac. It is set for release next March.

Novell Inc. is located at 122 E. 1700 South St., Provo, Utah 84601; (801) 379-5900. ■

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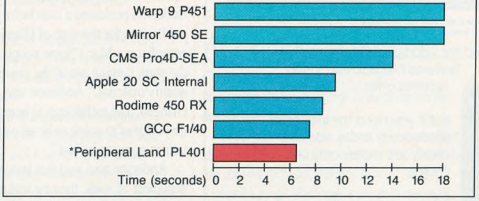
HARD DISK PERFORMANCE

This graph charts read/write performance for different disks used with a Macintosh SE (1 Mbyte of RAM, cache turned off). Figures shown are times to duplicate a 766-Kbyte file in the Finder.


Warp 9 P451
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DATACOPY

Continued from Page 16

output to non-PostScript printers such as Hewlett-Packard's LaserJet.

Despite its editing capabilities, Datacopy sees MacImage as a complement to rather than a replacement for gray-scale editing software such as Image Studio from Letraset USA of Paramus, N.J.

Version 2.0 of the $695 package will ship in December. Upgrades are available for $50 or free if Version 1.01 was bought after Sept. 4.

Datacopy also announced it will ship in January MacOCR, a $695 optical-character recognition package that will recognize seven fonts, including Courier, Elite, Times Roman and Helvetica.

The program will recognize only non-touching characters (without ligatures), according to the company.

MacOCR can read documents at speeds of less than 60 seconds a page with both graphics and text. It asks the user to define on the Mac screen what parts of the page are graphics and what parts are text. Then, it stores them accordingly in one of 10 different file formats.

The program will produce halftones from scanned art, but without gray-scale information and the editing capabilities of MacImage, the company said.

Datacopy Corp. is located at 1215 Terra Bella Ave., Mountain View, Calif. 94043; (415) 965-7900. ■

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All screens shown are unretouched photographs of running displays. This ad and the desktop publishing example were created with Quark XPress™ The CAD document was created with Versacad.™ MegaScreen, MegaTalk and WYSIWYW (What You See Is What You Want) are Trademarks of MegaGraphics, Inc. Apple and AppleTalk are Registered Trademarks and Macintosh is a Trademark of Apple Computer, Inc. Versacad is a Registered Trademark of Versacad Corp. Quark and XPress are Trademarks of Quark Incorporated. MegaGraphics is an Authorized Value Added Reseller of Apple Computer Inc. ©1987, MegaGraphics, Inc.

Graphic designers choose Macintosh

BY TERRI LONIER
Special to MacWEEK

CHICAGO — The Macintosh is the computer of choice for graphic design professionals, according to a consensus of participants at the Society of Typographic Arts (STA) conference on "The Computer in the Design Office," held recently in Chicago.

In presentations on design production, management and education, the Mac repeatedly was called the computer most preferred for its ease of use and design flexibility. "It's pretty much agreed that Apple is leading the way," said designer Michael Waitsman, CEO of Synthesis Concepts, a Chicago firm.

Psychologist Hart Weischselbaum of the Dallas advertising agency The Richards Group discussed fears he said are common among designers. He claimed that as the technology becomes widespread, designers fear potential dilution of their authority and loss of status, and the proliferation of poor documents.

Such publications, with awkward formats and multiple typefaces, often resemble "jumbled up ransom notes," said one participant. While not denying either fear, Weischselbaum urged designers to be adventurous and learn of the options.

Veteran designer Dave Doty, publisher of ThePage, a monthly Mac publication on desktop publishing, said he feels positive about the changes, noting that much of the repetitious tasks have been eliminated and the creative flexibility is a plus. "In the time it takes to find one solution to a problem using traditional methods, you can sketch through six or eight on a Mac," he said.

Doty said he is in favor of putting design into the hands of non-designers, an approach his publication reflects. "We live in a visually sophisticated world, and I think it's important for people to be design literate. We have enough ugly stuff in the world today," he said.

Addressing the designers who were concerned that current technology cannot produce "quality work," conference chairman Oscar Anderson presented a case history of a major publication for the state of Illinois created entirely on a Mac. "Some people are looking at the work coming out of the computer as lower-quality material," Anderson said. "But that has changed. The technology is here, and it's here now. If you're going to be an ostrich about it, you're going to be lost."

Anderson also said that instead of robbing designers of work, the new technology offers opportunities for their businesses. A principal in the Chicago design and communications firm Weingart/Anderson, Anderson has begun working with firms that have in-house desktop publishing systems to set up guidelines, grids and proposal formats in software form. "I see it as an opportunity to create a new chapter in the corporate identity manual," Anderson said.

The two-day event ended with a display of equipment by 22 vendors. More than 200 designers attended the conference. ■

FREEHAND

Continued from Page 1

Brainerd said a market study revealed that "nine out of 10 people said Illustrator was too hard to use. The study said, 'I don't want to manipulate Bezier curves.'"

According to Brainerd, a key feature Aldus contributed to the product is the FreeHand sketch tools that invisibly smooth out curves.

FreeHand offers the ability to bind text to an arbitrary line, according to Kaiulani Schuler, Aldus' FreeHand product marketing manager. Other special effects include graduated and radial fills and the ability to scale, rotate, reflect and slant text and graphics.

Images will appear on a Mac II in up to 256 colors with eight levels of magnification. Users can both create spot-color overlays and process color separations. Encapsulated PostScript files can be imported for editing or exported into PageMaker. FreeHand can open and edit Illustrator files.

FreeHand is meant to output to PostScript devices. A QuickDraw printer could be used for proofing, but the output would be limited to 72-dpi resolution. FreeHand does not output to slide recorders.

Brainerd said FreeHand will ship in the first quarter of 1988 and will cost $495. It runs on the Mac Plus, SE and II.

FreeHand greatly impressed Edmond Wong, an electronic publishing analyst for Dataquest, a San Jose, Calif., market research company.

"I think FreeHand is a really good product. I'm impressed with what it can do in terms of arbitrarily having text follow shape, color support and its editing features," he said.

FreeHand could outsell Illustrator because of Aldus' superior dealer network and FreeHand's kinship to PageMaker, Wong said.

He also praised the upgraded version of PageMaker, saying, "It is getting more of the functionality and display characteristics of high-end publishing systems."

Brainerd championed four new features of PageMaker 3.0: automatic text flow, user-defined style sheets, automatic text wrap around graphics, and image controls for scanned photographs and bit-mapped illustrations.

PageMaker offers support for spot color, according to Brainerd. "You'll see color overlays and cutouts that are not present on other products," he said.

The product will include 20 business-oriented templates for slides, proposals and newsletters, and will feature hierarchical menus for ease of use, smart quotes and optional "greeking," or simulated text, in page displays.

Furthermore, PageMaker "will be MultiFinder friendly with this release," Brainerd said. "We are modifying PageMaker to run as a background application more quickly."

PageMaker 3.0 probably will ship early next year, he said. It will sell for $595, with present users paying $75 for the upgraded Version 3.0. Brainerd said new buyers will pay only $15 extra to upgrade the version. ■

SnapShot allows video images to be made into halftones

BY RUSTY WESTON
MacWEEK Staff

SEATTLE — The next advance in the technology of desktop publishing — what Aldus Corp. refers to as "electronic photography" — will come to the IBM PC before the Macintosh.

The Seattle company will introduce this week at COMDEX/Fall'87 a program, SnapShot, that gives desktop publishers the power to manipulate video images into camera-ready halftones. Design studios, advertising agencies and catalog publishers can use this technology to perform work in-house that previously was shipped out to expensive studios.

Aldus hopes to set the standard for desktop gray-scale, video-image processing with the introduction of SnapShot software, which it is marketing and distributing for BioScan of Seattle.

SnapShot supports 256 gray levels at 8 bits per pixel for making images of newspaper to magazine quality, depending upon the output device.

Although images can be digitized and stored in TIFF or Encapsulated PostScript file formats, and then ported to a Macintosh, SnapShot was developed under Microsoft Windows and is likely to remain a PC product until late in '88, said Paul Brainerd, Aldus founder and president. The PC version will ship in the first quarter of 1988.

"The hardware is not yet available to have real-time video capture on a Mac," said David Gabrilska, vice president of marketing and sales for BioScan, a spinoff of BioSonics of Seattle. BioSonics was formed by a group of University of Washington professors who have become the world leaders in hydro-acoustics. BioScan develops image measuring systems for medicine and science.

"Desktop video is down the road," said Gabrilska."But how about a two-page memo with a picture of how our shopping center is coming along?"

The missing link on the Mac side is known as an image processing board or, more commonly, a video grabber. This device transports a video signal to a PC and a television monitor for image editing. SnapShot digitizes the image into a TIFF or EPSF file so that it can be saved or altered before being output in black and white to a laser printer or, preferably, a Linotronic typesetter.

To demonstrate the program, Aldus set up an Ikigama CCD camera with a macro zoom lens linked to a frame grabber board, which outputted an image to a Compaq 386 with a Sony monitor running SnapShot under Windows 2.0. Later, another image created on SnapShot was displayed on a Mac II.

Aldus designer Scott Campbell showed how a user can retouch images with an electronic paintbrush and airbrush tools. Options include monitor-only colorization, cropping, cloning image patterns for special effects and adjusting gray shades for image enhancement.

SnapShot is designed to mimic photographic and darkroom techniques. In addition to retouching capabilities, the program includes image sharpening to improve tonal contrast, gray levels to create negatives, line art and posterization effects from continuous tone images.

Aldus recommends two compatible frame grabber boards: PIP-512 by Matrox International Corp. and PCVISION Plus by Imaging Technology. SnapShot works with the following video sources: television signals, video laserdisc, videocassette recorder, CCD video camera or a combination of Canon RC-701 still video camera with an RR-501 recorder.

Aldus will distribute the software for $495, Brainerd said. Aldus will not bundle the hardware to make the system work. However, the system can be purchased in separate components costing up to $4,000 for a monochrome camera with zoom lens, tripod, image-processing board, cables, connectors and an RGB monitor.

John Nevius, SnapShot product manager for Aldus, said, "The more successful it is in the PC community, the faster we'll bring it to the Mac." ■

MAC II ROM

Continued from Page 1

market, according to several developers.

"National Semiconductor is the only card that will be affected any time soon," Orr said. "Color and graphics cards (announced but not yet shipping) from companies like RasterOps (of Cupertino, Calif.,) also will require more than 1 Mbyte of address space."

Without patches to the ROM, boards such as the NS8/16 16-Mbyte memory expansion module, recently unveiled by National Semiconductor Corp. of Santa Clara, Calif., cannot be recognized by the Mac II's Slot Manager.

"There is a small number of developers working on boards for the Mac II that would require more than 1 Mbyte of address space," Orr said. "We're also talking about a very specialized group of users who will want these boards for engineering and scientific applications. It's going to be a long way off before these boards will be used widely.

"There are definitely a number of these National Semiconductor [16-Mbyte] cards out there, but they have done their own patch and are using the card as a RAM disk," Orr said.

"If the board was sharing more than 1 Mbyte of address space, the 16 Mbytes of memory would be shared by the host memory. If you opened 'About the Finder,' it would say that you had the number of Mbytes of host memory plus 16 Mbytes provided by the National Semiconductor board," he said.

National Semiconductor's expansion boards cannot share address space with the host's, or main CPU's, memory because of the 24-bit limitation of the Mac II ROMs.

"It's not clear whether or not we'll provide the [upgraded Mac II] ROMs to all Mac II users or just those who require more address space," Orr said. ■

ACCELERATOR

Continued from Page 1

pany team. Novy Systems is working on the design of the product.

MacPeak of Austin, Texas, is less explicit about its plans, but the company also is "looking into an '030 accelerator board," said Richard Lucas, MacPeak's product manager.

The company will wait to make a definite decision until Apple announces its plans for the '030, he said.

Apple representatives have hinted that the company may make an '030 computer or '030 Mac II upgrade, according to Lucas.

John Sculley, Apple president, chairman and CEO, appeared as a featured speaker at Motorola's press conference Oct. 29.

"We've been talking to Apple since the summer and aren't clear what they're going to do. I would be surprised if they didn't come out with an '030 machine. If they do, there would be no way we'd compete with them," said Lucas.

Another source, who asked not to be named, said Apple executives told him that the 68030 will become a standard option for the Mac II.

Nevertheless, the source said, he expects at least three companies to announce accelerator products in the next year.

"It would be a fairly expensive board, for someone who likes expensive toys or who needs the extra power right away," he said.

Other company executives dispute the idea that an '030 entry from Apple would block the market for third-party developers.

"There is a market window. There is clearly some potential," said Mike Barta, vice president of engineering at General Computer Corp. of Cambridge, Mass.

Barta acknowledged that the timing of a product announcement, in relation to Apple's potential announcements, would be important. Barta would neither confirm nor deny that GCC is developing its own accelerator board.

GCC President Kevin Curranalso declined to discuss specific plans, but he said, "It's a logical possibility."

Executives at AST Research; Radius; and SuperMac, the parent company of Levco of San Diego, Calif., gave similar replies.

"Basically assume that everybody is doing [accelerator boards]. The stakes for this particular product are bigger than ever this year," said Bauer. ■

Tektronix joins price wars with 8 new systems

BY ANDY PASTERNAK
and ABIGAIL CHRISTOPHER
MacWEEK Staff

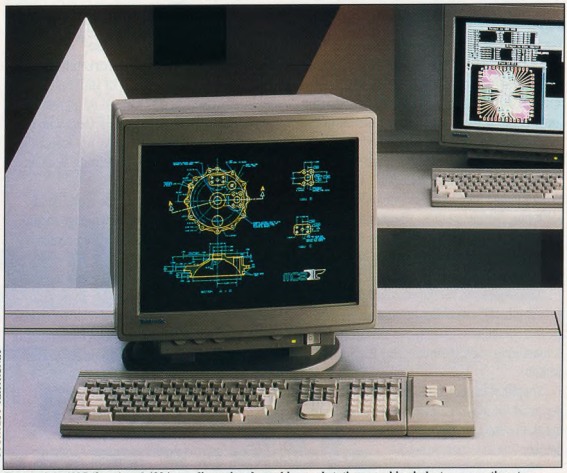
NEW YORK — In another major temblor in the shakeup of the workstation market, Tektronix Inc. of Beaverton, Ore., last week announced eight Motorola 68020/68881-based systems, a high-performance graphics applications processor and five graphics terminals.

Months after the price/performance wars heated up among workstation leaders Sun Microsystems, Apollo Computer and Silicon Graphics, Tektronix announced three basic workstation families here at the Jacob Javitts Convention Center last Tuesday.

At the low end, Tekronix announced the 4310 series bit-mapped graphics systems priced from $9,995 to $18,950. The 4320 series of two-dimensional systems cost from $23,500 to $37,500, and the high-end 3-D 4330 series computers are priced at $37,500 to $51,500.

The company also introduced several graphics terminals ranging in price from $12,950 to $37,500 for the 4320 and 4330

See TEKTRONIX, Page 21



COURTESY TEKTRONIX

Tektronix's 4325 (front) and 4324 two-dimensional graphics workstations combine industry computing standards with Tektronix's proprietary architecture for uses such as CAD, CAE, cartography and presentations.

Apollo's new network product allows concurrent usage licensing

BY JON SWARTZ
MacWEEK Staff

CHELMSFORD, Mass. — Apollo Computer Inc., in a move to provide greater workstation transparency, recently introduced the Network License Server (NLS), a network product that allows concurrent usage licensing.

The Chelmsford, Mass., company also announced five new computing environments for its Network Computing System (NCS) and the availability of OASYS Inc.'s Microsoft Cross C Development System for Apollo's UNIX-based workstations.

NLS, which allows users to concurrently access software applications regardless of their place on the network, bypasses single-CPU licensing and site licensing, two traditional approaches to licensing software.

An engineer at Sun Microsystems Inc. of Mountain View, Calif., said NLS would improve user flexibility but predates industry-standard sanctioning of concurrent usage licensing. "The whole picture could change once software licensing is standardized," said the engineer, who requested anonymity. "NLS is good on a user-to-user basis."

However, Apollo sees the product as a breakthrough. "Apollo has solved the network licensing dilemma faced by the industry," said Herrick Johnson, network computing product manager. "Concurrent usage bridges the gap between single-CPU licensing and site licensing. It allows sitewide usage and at the same time allows software suppliers to continue pricing based on the number of users served."

An Apollo spokesman said the company intends to promote NLS as an industry standard in the same way it has promoted NCS.

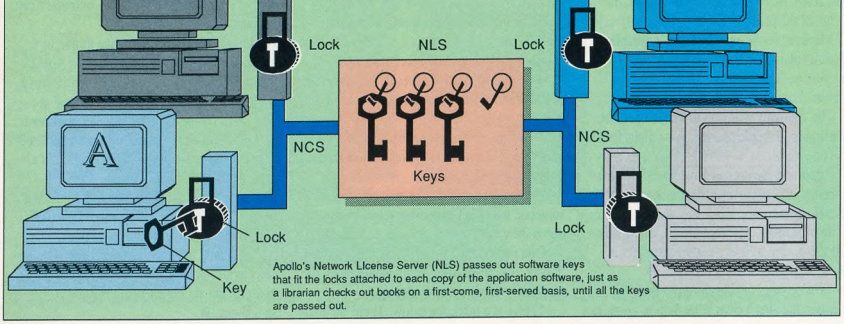
The NLS software resides on a file server that dispenses software keys that provide the right to use a software package on the network. The networked system can range from personal computers to supercomputers.

A copy of the application is installed on each computer but remains locked until a software license key is issued to it on the network.

To use NLS, the user licenses NLS software and a rack of key hooks to store license keys from Apollo, Johnson said.

A 50-hook license server has a one-time fee of $4,000, plus documentation. The annual fee for the 50-hook license server costs $1,000. The software supplier lock costs $5,000 for a

See APOLLO, Page 21



Apollo's Network License Server (NLS) passes out software keys that fit the locks attached to each copy of the application software, just as a librarian checks out books on a first-come, first-served basis, until all the keys are passed out.

Xerox to develop SPARC workstations

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

PALO ALTO, Calif. — Xerox announced last week that it will license Sun's SPARC proprietary RISC processor for developing high-performance UNIX-based technical documentation systems.

Xerox also will purchase "in excess of $10 million worth of Sun's hardware and software over the next two years for research and development," said Sandy Lanzarotta, spokesman for Xerox Corp. of Palo Alto, Calif.

Sun and Xerox also announced a joint research and marketing agreement that will promote "Converged UNIX," a version of the multitasking operating system combining the AT&T and Berkeley flavors of UNIX that was announced two weeks ago by Sun Microsystems Inc. of Mountain View, Calif., and AT&T Information Systems of Morristown, N.J., Sun and Xerox also will jointly promote Xerox's Network System Standards (XNS) networking protocols.

"We've been in the workstation market for some years and we've decided to develop systems that are open in terms of architecture and international standards," Lanzarotta said.

The announcements signal a radical change in Xerox's strategy in the workstation market.

"For Xerox, this represents the abandonment of several products. The question runs deeper than UNIX and SPARC (scalable processor architecture), since delivery is two to three years out, just in time for competition with OS/2," said Scott McCready, senior industry analyst at CAP International of Marshfield, Mass.

The company will port its ViewPoint technical documentation, spreadsheet and accounting software to SPARC-based workstations running UNIX. The company is expected to reduce its development of personal computers.

"We're not going to be as interested in PCs," Lanzarotta said. "We're no longer actively marketing PCs, although we will continue to support Xerox customers who have our PCs."

Xerox will continue to support users of its ViewPoint software, which runs under the company's proprietary operating system on its 6085 series workstations.

Over the next two to three years, Xerox will work with Sun to port these applications to UNIX workstations based on the SPARC technology, according to John Shoemaker, vice president of Xerox's document systems group.

"With the introduction of the SPARC license and UNIX support, Xerox will attempt to compete in document processing with Wang Laboratories' Integrated Imaging System," said CAP International's McCready. The Lowell, Mass.-based company announced that system last spring and it is already available for less than $100,000.

Xerox has not announced prices for the new systems, which are expected to be configured around high-end Sun workstations. ■

APOLLO

Continued from Page 20

one-time license fee.

NLS will be available on Apollo machines next March, and Apollo plans to make it available on Digital Equipment Corp.'s VAX VMS and ULTRIX systems, and Sun workstations.

Currently, applications running on those multivendor systems use concurrent licensing by communicating with a license server running on an Apollo workstation via NCS.

The company also said a $1,000 NCS source-code tape will be available in 1988 for Berkeley UNIX, Sun OS, VAX ULTRIX, MS-DOS, UNIX System V and VAX VMS.

Apollo and OASYS of Waltham, Mass., announced that OASYS' Microsoft Cross C Development System would be available on Apollo's UNIX-based workstations.

The offering would let software engineers use both Apollo workstations and the C compiler to develop MS-DOS targeted applications for IBM PCs and compatibles. ■

TEKTRONIX

Continued from Page 20

series workstation families.

"The lower-end Tektronix workstations compare favorably with Sun, Apollo and DEC, and provide greater display performance," said Ken Anderson, a CAD/CAM consultant and editor of the Simi Valley, Calif.- based Anderson Report. "Tektronix's goal is for 7 percent to 10 percent of the workstation market. They'd be tickled pink if they got that. If I were their product manager, I'd consider that a success," he said.

Several third-party developers have ported software to the new Tektronix platforms for applications such as earth resources, interactive surface modeling, CAD, mechanical engineering, finite element analysis and piping design.

The 4310, 4320 and 4330 series of Tektronix workstations are all 2-MIPS machines configured around the Motorola 68020 microprocessor and 68881 floating point processor.

The 4317, the first in the 4310 series, is priced at $18,950. It offers a display resolution of 1,376 by 1,024 pixels, a 19-inch monitor, four bit planes of color, 4 to 12 Mbytes of memory and 86 to 300 Mbytes of storage. Standard software includes the Tektronix UTek version of UNIX, X-Windows 10.4, IBM XT emulation software from Insignia Solutions of London and several programming compilers, including Smalltalk-80, C and Common Lisp.

The 4325 member of the 2-D graphics family provides a 20-MHz 68020 CPU, 4 to 12 Mbytes of memory, 86 Mbytes of mass storage and an additional 68020 graphics processor. UTek, X-Windows, Sun's Network File System (NFS) protocols and PLOT-10 graphics software are included. The system also includes an Ethernet LAN with TCP/IP protocols and eight bit planes of color. This configuration is priced at $29,950.

The $47,500 4330 system provides 4 to 12 Mbytes of system memory, 86 to 300 Mbytes of mass storage, a display resolution of 1,280 by 1,024 pixels, eight to 24 bit planes of color, a 20-MHz 68020 CPU and a proprietary graphics coprocessor. The system also comes standard with UTek, X-Windows, NFS and PLOT-10.

The 4330 series systems offer competitive two-dimensional and 3-D vector processing speeds, according to an engineer at a competing workstation company.

"The high-end system is cheap, fast, and yet the growth path of 68020-based systems is limited. While the 3-D graphics system is competitive, it's surprising that Tek didn't base these systems around RISC or 68030 processors," the engineer said. ■

File transfer among Apollo, IBM, DEC machines

NEW YORK — Spectrum Concepts Inc. last week announced a file transfer software product that allows the exchange of information among Apollo workstations, IBM mainframes, IBM System/38, and DEC's VAX and personal computers on a variety of media and LANs.

The product, called XCOM 6.2, extends Apollo's networking capabilities to IBM's Systems Network Architecture (SNA) network protocols LU 6.2 and Node Type 2.1.

"XCOM bypasses such data exchange as network job entry and remote job entry that require the emulation of printers and card readers," said Alec Gindis, Spectrum Concepts' president. XCOM makes the Apollo appear as an intelligent node to remote SNA systems, he said.

XCOM 6.2 for Apollo costs $3,500 per computer and will be available Jan. 30. It will be sold directly through Spectrum Concepts. ■

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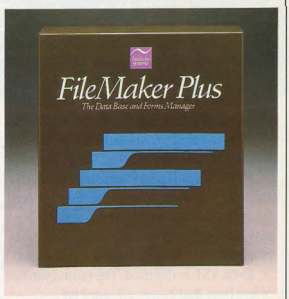

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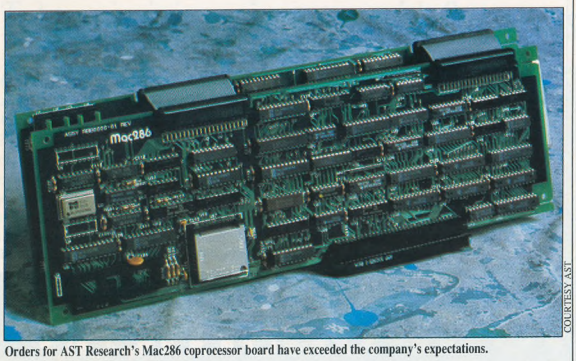


COURTESY AST

Orders for AST Research's Mac286 coprocessor board have exceeded the company's expectations.

AST board finds ready market

Coprocessor's initial success may surprise some analysts

BY CLAIR WHITMER
MacWEEK Staff

IRVINE, Calif. — After months of anticipation and volumes of commentary from the industry press, AST Research Inc.'s Mac286 coprocessor board for the Macintosh II has reached the open arms of distributors.

On this floor of the marketing house of cards, the Mac286 board appears to be a booming success, with orders exceeding the Irvine, Calif., company's own expectations.

Since the product is just starting to trickle out to the dealer pool, it is too early to evaluate its success at the user level. However, dealers are somewhat more reserved in their enthusiasm than distributors, who are already making money on the product.

Nevertheless, the board's initial success may surprise some industry analysts who speculated that the need for this product, as well as the hardware, was manufactured by AST and its codevelopers Apple and Phoenix Technologies of Norwood, Mass.

"Those doubts are not coming from our customers. Our next four orders are backordered. These are large-corporation customers who are presumably experienced enough to know their needs," said AST spokesman Mark LeBar.

The large corporations LeBar referred to include General Motors, DuPont, Boeing and Northern Telecom, all of which are evaluating the boards.

AST distributors also contest any speculation that the need for the board was overstated by its creators. "If that were true, that would mean this hot selling would only be a temporary situation, and I don't believe that. It's selling like hot cakes," said Clark Harold, president of Micro D in Santa Ana, Calif.

Jack Kolk of Bonsu Distribution in Sunnyvale, Calif., said he originally thought the need for the product "could have been a marketing ploy," but he said it is selling much better than projected.

Even AST is surprised. The second wave of orders from distributors exceeded the company's own fairly ambitious projections. In fact, the orders exceeded AST's production schedule, which is now scrambling to keep up.

Dealers and analysts, however, give a more guarded view of the Mac286's market prospects. The board's price of $1,499 plus the additional hidden cost of a Macintosh disk drive that can read 5.25-inch floppies is an overriding concern for many users.

Steve Baker, purchasing agent for Computer Alternatives of Hickory, N.C., said that's just too much for most users, for whom data transfer is the real key to Mac vs. PC situations. "I don't think they really want to run [MS-DOS] applications," Baker said.

Jim Howland of Santa Rosa (Calif.) Computer Store agreed, saying he estimates that

> "I'm going to [buy one] and I'm tight with my money. At last, a machine that can do it all."

75 percent of users need the file-transfer ability rather than the MS-DOS operating system itself. For these people, a solution that ends up costing close to $2,000 is just too expensive.

"The honest truth is that if we really wanted to run MS-DOS, we could do it cheaper by buying clones," said Don Wood, associate professor of industrial education and technology at Western Carolina University in Cullowhee, N.C.

Wood had placed an order for at least six coprocessors in order to incorporate his Mac IIs into his department's MS-DOS programming lab. The Macintoshes are used for CAD research. It was eventually decided that the expense outweighed the benefits.

According to most accounts, for those who do need to run MS-DOS applications, the board is a great boon despite complaints about the slow screen-refresh speed. AST promises

See AST, Page 24

The higher they were, the harder they fell

BY JOSEPH PERATES
Special to MacWEEK

When the stock market collapsed on Oct. 19, it was hardest on those stocks that had ridden the highest in the pre-crash boom.

Since Jan. 1, the Dow Jones Industrial Average had gained 30 percent, the Computer Technology Index had performed better than the Dow, the MacWEEK publishing indexes had done better than the computer index and Apple had performed best of all.

It was almost exactly the reverse on the sudden way down.

Over the two-week period, the Dow lost 21.41 percent of its value. The CTI was off 25.97 percent; the Electronic Publishing Index, 29.44 percent; Apple, 34.41 percent; and the Desktop Publishing Index, 34.67 percent.

The collapse did not eat up all the year's gains. Comparing the Oct. 23 close to Apple's price on Jan. 1, investors had still made more than 75 percent on their money.

In the crash, over-the-counter stocks took a worse beating than stocks traded on national exchanges. Of the 20 companies listed in the MacWEEK indexes, 13 are over the counter.

As all issues plummeted, investors rushed fastest away from smaller firms. The blue chips in the index — Hewlett-Packard, Eastman Kodak and Xerox — recovered somewhat as the week wore on. The exception to that rule was Digital Equipment Corp., which fell to under 120 from a close two weeks earlier of 185-1/4. Most secondary stocks continued to fall as the overall market leveled.

Of the MacWEEK index stocks, the best performer was workstation maker Intergraph, which was down only 1-1/8 to 20. Adobe absorbed the worst pounding, losing almost 66 percent of its value.

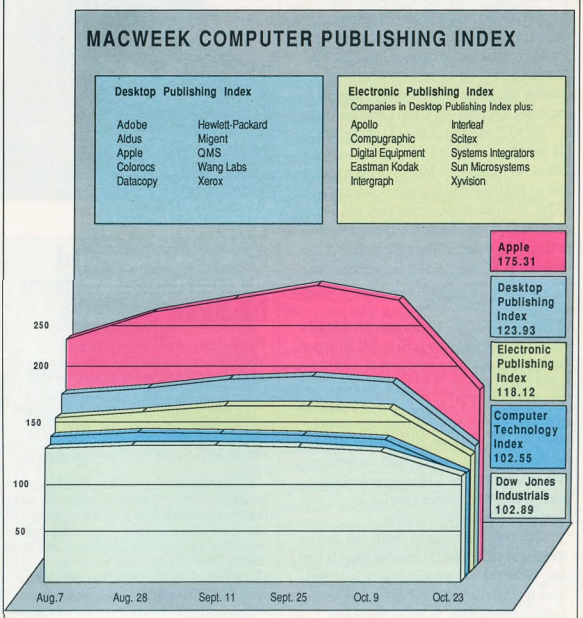
Some of the companies in the index shored up their prices by announcing stock buy back plans. Wang's plan to take 3 million shares out of circulation helped only temporarily as the stock dropped from 18 to 11. Other buy backs were announced by Xyvision, Xerox and Intergraph.

The crash overwhelmed good earnings reports from a number of companies, including Sun, Xyvision and Interleaf. Sun also announced significant new deals with AT&T and Xerox, yet it fell from 38-1/4 to 24-3/4.

The bad news won't likely end soon for computer and publishing stocks. In the troubled financial climate, buyers of computer systems may postpone or cancel purchases, which could accelerate the decline. Also, smaller manufacturers may have more difficulty raising capital for new projects and operations may have to be scaled back.

Meanwhile, investors will be hunting for good bargains, but price earnings ratios need to be re-evaluated using post-crash assumptions.

Joseph Perates, a stockbroker in the Newport, R.I., office of Thomson McKinnon Securities, (401) 849-2825, developed the MacWEEK Desktop Publishing and Electronic Publishing indexes. His opinions are his own.



Falcon continues Apple's government bids

BY RUSTY WESTON
MacWEEK Staff

LANDOVER, Md. — Apple has opted to not exclude the middleman in its quest to outfit the federal government with Macs and vertical solutions.

For the sixth straight year, Apple awarded a "letter of supply" to Falcon Microsystems Inc. of Landover, Md. Even though Apple has beefed up its Washington, D.C., staff this year, the company chose the well-connected Falcon sales force for the Government Services Administration listing.

Government agencies do not have to buy computers from the GSA schedule, but the price list is considered a guideline for purchases of systems costing less than $300,000.

Falcon officials said Falcon sold $20 million worth of Macs in Apple's 1987 fiscal year, which ended Sept. 25. Falcon predicts it will sell between $30 million and $40 million worth of Apple products to the federal government in 1988.

John Snook, Falcon's business development director, said Apple is likely to increase its 4-percent share of the government market with the introduction early next year of A/UX, Apple's version of the UNIX operating system widely used in research. The powerful Mac II also is paving the way for Apple, he said.

"The Mac II, from a price/performance point of view, is the premier product in the microcomputer industry," Snook said. "That's one of the reasons we're so optimistic about Apple's opportunities."

The 1988 GSA schedule year extends from April 1 to March 31, with the deadline for entry Nov. 18. Vendors sign contracts with the GSA guaranteeing to offer products at set prices to all agencies, but no orders are actually taken ahead of time.

The early deadline set by the GSA gives vendors time to negotiate deals and the government time to size up vendors. ■

Priam posts first-quarter loss

BY JIRI WEISS
MacWEEK Staff

SAN JOSE, Calif. — Priam Corp., a manufacturer of hard disk drives, reported a net loss of $2.5 million, or 10 cents per share, in its first fiscal quarter of 1988 ended Sept. 30. This is an increase of 56 percent, compared with a net loss of $4.8 million, or 20 cents a share, in last year's first quarter.

The quarter's revenue of $31.1 million is an increase of 19 percent over the $27.3 million reported in the first quarter of 1987.

During its first quarter of 1988, Priam increased production of its new 5.25-inch 380-Mbyte Winchester disk and invested in a production plant in Taiwan.

The production of Priam's 80- and 50-Mbyte disks will be completely relocated to Taiwan by the end of the year, which will enable the company to close down its U.S. production facilities for the drives, said Nathan Kawaye, Priam vice president and chief financial officer.

Production of new hard disks, ranging in size from 190 Mbytes to 380 Mbytes, accounts for 20 percent of revenue, he said. "We are starting to see paybacks on these investments," Kawaye said.

Priam's 380-Mbyte disk is available in an SCSI version, but the company is not specifically targeting the Macintosh market. "We are looking into plugging into Mac systems, but there are no definite plans," a company spokesman said. ■

Scientific Microsystems sales up 75%

BY JIRI WEISS
MacWEEK Staff

MOUNTAIN VIEW, Calif. — Scientific Microsystems Inc. reported third-quarter sales of $34.5 million, an increase of 75 percent from the $19.7 million reported in the same quarter last year .

The Mountain View, Calif., company reported after-tax profit for the quarter was $1.3 million, or 15 cents per share, an increase of 57 percent from the $847,000, or 10 cents per share, reported in last year's third quarter.

The 1986 figures were restated to include earnings from the recently acquired SuperMac Technology of Mountain View.

In the first three quarters of the year, the company's revenues grew 72 percent to a record $89.6 million from the $52 million reported in the first nine months of last year.

Profit after tax increased 55 percent to $2.9 million, or 32 cents per share, compared with earnings of $1.8 million, or 21 cents per share, in 1986.

The company attributed the significant rise in income to the acquisition of SuperMac and to the signing of major contracts with several hard disk drive manufacturers. "SuperMac has proven to be a very high growth segment of the business, accounting for better than a third of total revenue," said Rick Jones, SMSI controller. "We have been able to expand the SuperMac product line, especially in Europe."

During this quarter SMSI acquired San Diego Levco Corp. of San Diego, a designer of add-in board level products to complement the SuperMac product line, according to SMSI. The third quarter results include those of Levco as well as the transaction costs.

SMSI manufactures disk drives and other peripherals — including mass storage subsystems, ASIC chips, data controllers and storage-related VLSI components — for IBM PC-XT/AT, Apple, DEC, Multibus and VMEbus environments. ■

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AST

Continued from Page 22

to fix the speed problem with a software update to be released in the latter part of this year or the first part of next year.

James Kalin is a consultant for the San Diego-based Microcomputer Publishing Group. He praised the board as providing a "tremendous development machine" for people like himself who traipse frequently between IBM and Macintosh platforms. "I'm going to [buy one] and I'm tight with my money. At last, a machine that can do it all." he said with a sigh of relief.

Kalin said he plans to utilize an integrated set of file structures by creating macros to link MS-DOS with Macintosh files. Or, he said, he may use Ashton-Tate's dBase for the IBM with McMax for the Macintosh from Nantucket Corp. of Los Angeles. In addition, he said he intends to recommend the coprocessor to his clients as a way to use the Mac and still keep in line with corporate MS-DOS requirements.

Although he is not one of Kalin's clients, Allen Courtney is following similar advice. As director of marketing for the American Presidents transportation company in Oakland, Calif., Courtney had opposed the

> "One of the weaknesses of Macintosh software is not the lack of horizontal applications, it's more the vertical applications."

companywide integration of the Macintosh.

He argued that some of the productivity tools he was used to were available exclusively on the IBM PC, including a vertical application aimed particularly at the transportation business. But he lost his battle against the Macintosh, defeated by an easier user interface.

The company's systems manager offered him the AST coprocessor as part of the resulting truce. "It satisfied both of our requirements, his for having an integrated system and mine for doing what I wanted," said Courtney.

McCarthy's opinion of the product's future echoed Courtney's experience. "One of the weaknesses of Macintosh software is not the lack of horizontal applications, it's more the vertical applications," said McCarthy. The coprocessor board will find its market in companies that have developed specialized software on the MS-DOS platform, he said.

McCarthy predicted AST will sell one board for every 10 Mac IIs that are sold, a figure that would mean a monthly production run of 3,000 to 4,000 for the company. Dave Troup, AST's product marketing specialist for the board, confirmed those numbers.

Although that might add up to comfortable profits for AST, it would be "small change" to Apple, according to McCarthy. He characterized the board as more of an insurance policy for dealers and Apple sales people than as a truly useful product.

"Apple stands to benefit more than AST, regardless of whether or not AST does well with it," agreed Jocelyn Young, an analyst for Future Computing in Dallas.

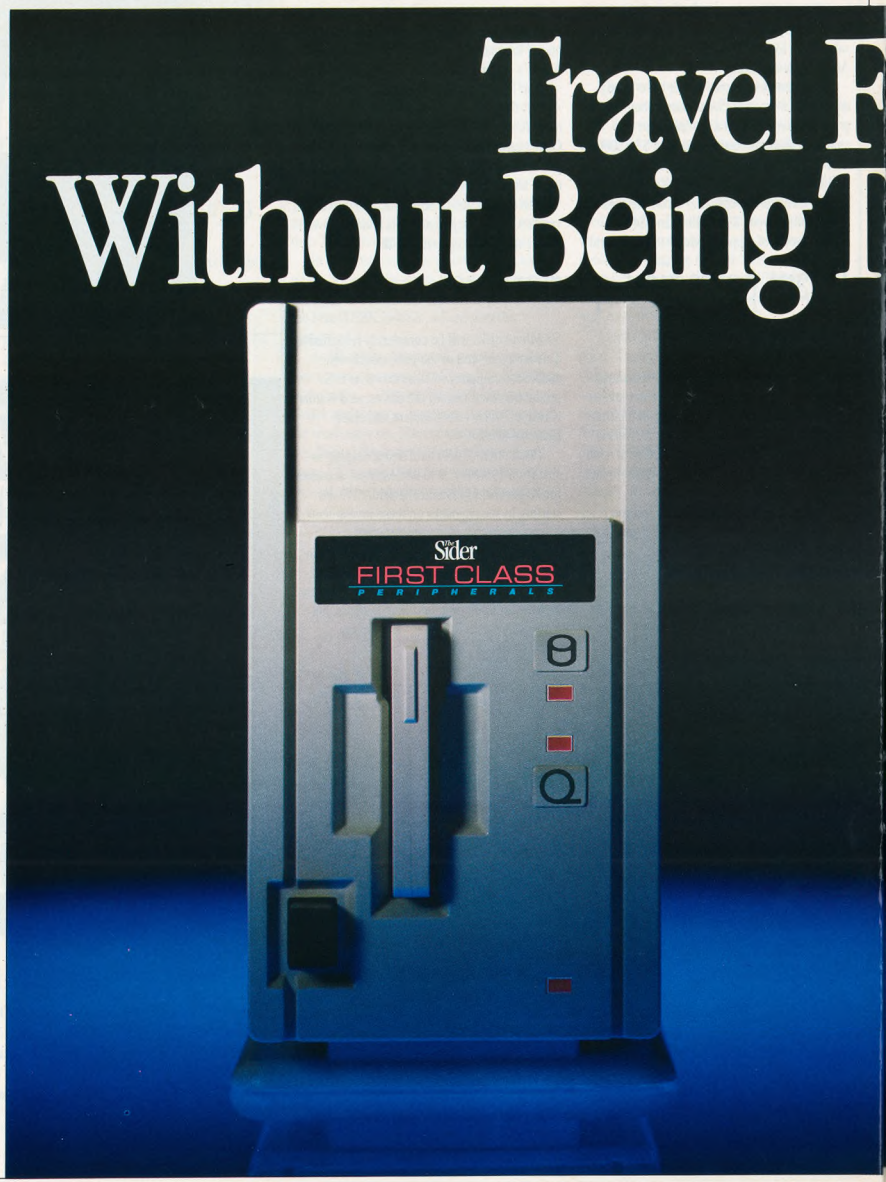
Whether or not AST will do well in the long term with the board is another question, and one that's too early to accurately determine.

Kalin predicted sales of the card will only increase as the installed base of Mac IIs increase. "I doubt that you're going to see a plateau of sales of this card," he said. In addition, the Mac86 board for the SE has not yet begun shipping.

But most analysts agree that several factors could make the product's initial success a temporary one. Some, like Mike Goulde at Yankee Group in Boston, said the product "has a short-term future."

Goulde pointed at the possibility of a multi-platform workstation being developed at some point. Others hint at the possibility of other companies entering the coprocessor market with Apple's blessing.

According to several analysts, other, more easily foreseeable events that could cut into AST's already limited marketshare are the port of Lotus' 1-2-3 to the Macintosh in late 1988, the port of database programs like Ashton-Tate's dBase for the Mac and the proliferation of networks that allow cross-platform file-transfer, like the products from TOPS of Berkeley, Calif. ■



Kinetics' FastPath now sold at Businessland chain

BY JON SWARTZ
MacWEEK Staff

WALNUT CREEK, Calif. — Businessland Inc. began selling Kinetics products at all of its 94 stores nationwide.

Kinetics products include FastPath, a stand-alone device that connects AppleTalk to the Ethernet network standard.

Under the agreement, Businessland, based in San Jose, Calif., began selling Kinetics products Oct. 22, a Kinetics spokesman said.

Neither company would reveal further details of the agreement.

"We are pleased to be working with Businessland because of its commitment not only to the Macintosh but to addressing the broader concerns of large organizations with proliferating networks," Kinetics' President Tim McCreery said in a written statement.

The distribution agreement is considered especially significant for Kinetics of Walnut Creek, Calif. Until now, Kinetics has relied on direct sales and value-added resellers in the United States. The company already has distributors in Europe, Asia and the Middle East.

Businessland has marketed the Macintosh and related software products since March 1984. ■

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CALENDAR

NOVEMBER

9-13 — **Advanced Systems Analysis** (San Francisco)
A five-day course sponsored by the Association for Systems Management designed to show experienced systems analysts how to break away from a "bits and bytes" perspective and view operations from a business viewpoint. The program is aimed at systems analysts, lead programers, project leaders and executives involved in systems-related assignments, focusing on strengthening analytical skills and techniques for systems analysis and design. Contact: Charles D. Black at ASM at (415) 4288-4786.

9-12 — **NCGA Mapping & Geography Information Systems** (San Diego)
Sponsored by the National Computer Graphics Association, the conference and exposition highlights automated mapping and geographic information systems. More than 25 vendors are expected to exhibit. The conference portion will be divided into three program areas: automated mapping/facilities management (AM/FM), geographic information systems (GIS) and energy mapping. Contact: Bob Cramblitt at (703) 698-9600.

10-11 — **Macintosh Engineering Expo** (Nassau, Texas)
Sponsored by the NASA Area Macintosh Users group, as well as ComputerCraft and Apple, the exposition will focus on engineering, graphics and networks. Apple, Hewlett-Packard, Microsoft, Rodime, Tangent Technologies and other companies will give demonstrations of products related to the engineering field. Contact: ComputerCraft at (713) 481-5600.

11-13 — **Long Island Apple Expo** (Plainview, N.Y.)
Former Apple software development chief Guy Kawasaki, now president of ACIUS Inc., will be the keynote speaker at the three-day conference aimed at business and education users. A partial list of participants includes Cricket Software, Adobe, WordPerfect, Ashton-Tate, Microsoft and Interleaf. Hands-on workshops, demonstrations of educational applications of the Apple II and IIGS, and seminars by Apple specialists for educators of kindergarten through high school will be provided by Apple. Contact: Janet Box at (516) 249-3366.

16-17 — **Datagram 1987 Electronic Publishing Conference** (Bedford, Mass.)
Conference will focus on "Unlocking the Market — the Acceptance Factor." Panel discussions include adapting technology to the publishing process, desktop publishing, office systems, dedicated publishing, strategic systems architectures for electronic publishing and page description language standards. Contact: Dataquest at (408) 971-9000, ext. 501.

Send calendar events to: Clair Whitmer, MacWEEK Calendar, 525 Brannan St., San Francisco, Calif. 94107.

From left are Carlos M. Castaneda, Deborah Howell, Burl Osborne, Tom Mullen and Robert Lockwood, panelists at the Society of Newspaper Design Conference.

EILEEN BLASIUS/LANSING STATE JOURNAL

MAKING HEADLINES

Newspaper conference focuses on Macs

ZACH RYALL/AUSTIN-AMERICAN STATESMAN

Peter Sullivan of the London Sunday Times (left) and Edwin Taylor of U.S. News & World Report discuss design strategy with Jacqueline Combs of the Chicago Tribune and Shane Gericke of the Chicago Sun-Times in the Mac newsroom created by The Electronic Publisher Inc. for the Society of Newspaper Design Conference.

BY STUART SILVERSTONE

Special to MacWEEK

AUSTIN, Texas — Art departments at daily newspapers are so dominated by the Macintosh that the recent annual conference of the Society of Newspaper Design had the feel of a machine-specific gathering of the faithful.

Equipment vendors were, in fact, almost totally barred from the event, and the familiar Apple evangelist roles were left to the information graphics designers who often spend their entire workdays in front of a MacDraw screen. The big news was that the Mac might soon migrate out of the art departments of many American dailies to the desks of page-makeup editors, then to the advertising, production and accounting departments, and, possibly, to every reporter and editor's desk.

The conference's pro-Mac attitude was reflected in editorial comment and user testimonials published in a 24-page, full-size, color, Mac-produced newspaper created in three days right at the event itself. Under the headline "Building a Better Mousetrap," one journalist succinctly wrote that the Mac "has changed the way we do graphics, and in the span of several years, the Macintosh computer has evolved from a novelty to a deadline workhorse."

User comments provide insight into how the Mac is being used and why it is so widely accepted. "One of the biggest changes since our use of the Mac is the emphasis on sharing information — not only between editorial and art departments, but also between newspapers. The Macs allow greater emphasis to be placed on content because less time is taken up with production," said Marla Camp, art director of the Ann Arbor (Mich.) News.

"We've gone from three Macs used only by one or two people in the art department to where most of the people in the newsroom are interested in having Macs in their own departments," said James Black, production manager at the Dallas Morning News. "They have broken down a lot of barriers for us."

The Los Angeles Times is more conservative in its attitude toward the Mac. "We don't produce many finished products on the Macintosh," said Martha Steffans, Times assistant city editor. "For us, it is yet another tool that speeds the creation process of graphics and allows us to do more complicated visuals. The Mac technology is not yet there to produce the level of quality we need."

The eight Macs owned by the Columbus (Ohio) Dispatch are all in the hands of the art department, according to Kathy McClelland, copy editor. "But they have brought some copy editors in from other departments and taught us how to download graphics, and gradually we're learning to fine tune them to our style," she said.

These favorable responses from users and the perception that the Mac has had significant impact on a traditional profession help explain why Macs probably dominate newspaper publishing more than any other vertical-market industry.

A survey of conference attendees — tabulated on a Mac and displayed with Macintosh graphics in the Mac-produced newspaper — provides a profile of newspaper users. According to the survey, 86.7 percent of graphics departments have Macs, compared with 9.2 percent using IBM equipment. Color is used by most of the newspapers; 58.8 percent use it daily. Newspaper art departments average 8.6 staff members, two-thirds of whom are under the age of 25.

But the best explanation is the obvious one — the capabilities of the machines themselves. Don DeMaio, director of graphics for The Associated Press, showed in one conference workshop the first graphic transmitted by AP in 1935 and a recent illustration of maneuvers in the Persian Gulf — attributing the greatly improved quality directly to the Mac.

Karl Gude, art director for information graphics at AP, demonstrated Deneba Software's Canvas graphics software at his workshop, praising its magnification and reduction views; free rotation of objects and text; macro keys for storing regularly used, custom-designed graphics symbols; ability to create new vertices in polygons; and ability to precisely align objects using the arrow keys.

The big question in the newspaper information graphics arena concerns which, if any, of the new drawing packages will become an industry standard — a position now held by MacDraw. The decision is especially important to newspaper chains and graphics services that distribute their Mac drawings to remote sites. Files must be compact for transmission and generated by commonly available software that is simple to use so that receiving newspapers can customize, modify and update graphics for

EPI brings Mac systems to newspapers nationwide

EXCELSIOR, Mo. — The company that created the instant SND newsroom in Austin, Texas — The Electronic Publisher Inc. of Excelsior Springs, Mo. — also has installed 130 Mac-based publishing systems at newspapers across the country.

EPI is an authorized Apple value-added reseller specializing in systems integration, training and 24-hour support for professional publishing installations. Patrick Morgan, EPI's founder, was the publisher of a daily newspaper and weekly shopper who purchased a Mac and LaserWriter for his own publications. Recognizing the potential of such a system for newspapers, he switched from publishing to equipment distribution.

EPI developed its own system, integrating Blyth Software's Omnis 3 Plus and Knowledge Engineering's JustText for newspaper classified advertising, production and billing. It works closely with Apple and third-party vendors such as Quark Inc., whose XPress package is becoming popular for newspaper layout, to bring new tools into the electronic newsroom.

In addition, EPI is working with developers to bring needed capabilities to the newspaper publishing industry.

Morgan claims Mac-based systems will cut by half the cost of setting up a newspaper publishing operation, and with the arrival of higher-resolution laser printers, even medium-size dailies will be relying completely on Macs. — *By Stuart Silverstone*

EXTRA
The Austin Chronicles
Record turnout for SND
How we designed an instant newspaper
Looking into computer crystal ball
How Mac's tonal values match up to the camera's

Experimental Mac-produced newspaper for SND conference a success

Extra! Extra! Read all about it!

A full-color 24-page publication produced using nothing but Macs, laser printers and peripherals is considered the equal in quality to any traditionally produced daily

AUSTIN, Texas — The country's first all-Mac-produced color broadsheet newspaper, The Austin Chronicles, rolled off the press recently after three days of intense work by a staff of 40.

The newsroom of 24 Macs, laser printers and peripherals was then immediately dismantled and the paper's publication ceased.

The experiment involved an "all-star team" of the nation's top newspaper designers, information graphic artists, editors, photographers and Mac systems experts from an Apple value-added reseller that serves newspaper publishers nationwide.

At the annual meeting of the Society of Newspaper Design, a narrow hotel meeting room was set up with the Macintosh equipment, which became part of a cavernous ballroom after the page layouts, measuring 22 inches by 17 inches, were delivered to the nearby Austin American-Statesman for a press run of 10,000.

Four hours later, newsboys distributed the finished 24-page newspaper to cheers from some 600 attendees gathered in the ballroom for SND's annual awards banquet.

The idea for the one-issue experiment originated two years ago in Austin, Texas, and solidified at last year's SND Conference, when John Walston, deputy managing editor of graphics and photography at USA Today, agreed to be its executive editor. Earlier this year, the paper's staff was recruited from news organizations around the country. A Macintosh-based hardware and software publishing system was designed, and printing logistics were arranged with personnel at the Austin-American Statesman.

Walston and his co-editors planned the paper's 24-page layout by phone before arriving in Austin. Meanwhile, Mac experts at The Electronic Publisher Inc. — newspaper publisher turned computer system consultant — of Excelsior Springs, Mo., arranged for a truckload of its equipment to be transported to the conference hotel in time for the arriving newspaper staff.

The temporary Austin Chronicles newsroom included five Mac IIs, four Mac SEs, 14 Mac Pluses, one LaserWriter Plus, two Varityper 600 laser printers, one optical scanner and a Kurta drawing/digitizing tablet. The 300-dpi LaserWriter was used for proofing, while the 600-dpi printers output letter-size camera-ready copy that created six tiles for each broadsheet page. Color overlays and photos were stripped into the pages by hand.

Teams of designers, artists, writers and photographers worked to prepare the pages under a tight schedule of staggered deadlines. The remaining conference participants attended workshops, with occasional visits to the spectator gallery of the working newsroom.

The 24 Mac page layouts were submitted by the deadline and an exhausted Walston reflected on the breakthrough.

"With time and experience, I think I could produce a page in 20 percent of the time it takes under traditional cut-and-paste methods. Apple and Quark don't quite realize the animal they've unleashed. That animal is not desktop publishing, it's publishing ... real publishing. The paper we produced on the Mac in three days was as good as any major U.S. daily. If you put them side by side, you couldn't tell the difference; and you can be assured the average reader could never tell the difference," Walston said.

"We at USA Today are looking at it for very selfish reasons. We don't want to let something like this slip from us. We already see opportunities to supplement and add to our own newspaper. We could set up a mobile newspaper — not just a local mobile newsroom — and cover an instant community with an instant newspaper. We could cover the Super Bowl and when people walk out of the stadium, we could hand them the final score with pictures from the fourth quarter.

"We could produce a 10-page supplement for a national political convention. It's the right audience. It craves news that the local newspaper doesn't cover — information that nothing but an instant newspaper can give them because of space or time constraints. You can give the reader in these populations of 3,000 to 5,000 specifically what they need, without dumping that stuff on other readers. You don't want to print 1.7 million five-page supplements a day when you only have to print 5,000.

"It's funny, I thought the small publishers were going to bring this about, but now it looks like the big publishers are going to do it," Walston said. — *By Stuart Silverstone*

late-breaking news stories.

Until now, MacDraw has been the obvious choice because even the smallest client among the hundreds served by, for example, AP is likely to have it. The Knight-Ridder Graphics Network also relies on MacDraw, but it has recently transmitted Adobe Illustrator graphics as well. For the New York Times and some of its smaller dailies around the country, Adobe Illustrator is the standard graphics tool.

So important is this issue of a newspaper industry standard that several major software publishers flew to Austin to demonstrate their soon-to-be-released but as-yet-unannounced graphics programs.

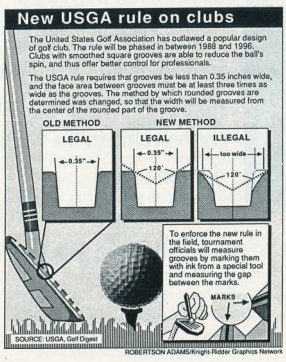
"We're still looking for what we feel is the best drawing software — Illustrator, Masterpiece, MacDraw Plus, Canvas," said AP's Gude. "We realize we are going to have an impact on the market with 400 newspapers on line. When we make that decision, we will come out with one big update on all our graphics and on our distribution process."

As for the future impact of the Macintosh beyond information graphics, Gude said: "For 100 years, AP has been sending news to newspapers in pieces — stories, photos and graphics. The Macintosh will now make it possible to send newspapers to newspapers. We can send paginated special sections."

For example, he said that AP is preparing a special section to cover next spring's Super Tuesday primary election.

"We also want to work on an Olympic special," he said.

"Theoretically, when our on-line newspapers receive it by Graphics Net or AP Access, they can just print it out — and they've got a special section on the Olympics," he said. ■


New USGA rule on clubs
The United States Golf Association has outlawed a popular design of golf club. The rule will be phased in between 1988 and 1996. Clubs with smoothed square grooves are able to reduce the ball's spin, and thus offer better control for professionals.
The USGA rule requires that grooves be less than 0.35 inches wide, and the face area between grooves must be at least three times as wide as the grooves. The method by which rounded grooves are determined was changed, so that the width will be measured from the center of the rounded part of the groove.
OLD METHOD
NEW METHOD
LEGAL
LEGAL
ILLEGAL
0.35"
0.35"
too wide
120°
120°
To enforce the new rule in the field, tournament officials will measure grooves by marking them with ink from a special tool and measuring the gap between the marks.
MARKS
SOURCE: USGA, Golf Digest
ROBERTSON ADAMS/Knight-Ridder Graphics Network

AP/GRAPHICSBUILDERS by Robert Lockwood and Nigel Holmes

The Barbecue Brothers would rather bake beans than count them.

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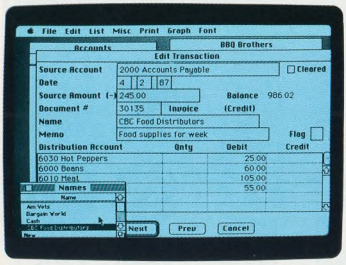

All of which means they have more time to do what they do best: which is make the best chili in the whole doggone state.

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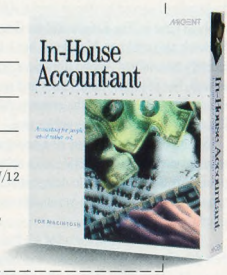


Trademarks: In-House Accountant, PC Software Development; Macintosh, Apple Computer, Inc.

Increasingly sophisticated software demands training

BY ELINOR CRAIG
MacWEEK Staff

Remember the ad: quiet, empty, white space fractured by heavy, thick IBM manuals crashing down. Next, the Mac manual floats down slim, trim and attractive. Which manual would you prefer to read?

Until recently, Apple marketed the Mac's ease of use and the minimal time needed to get users up and working. So why do we now see training programs sprouting up all over?

Aldus, Microsoft, independent consultants and Apple itself have joined the training efforts that are old hat in the PC world.

"Software is growing more sophisticated," said Joan Tabb, who until recently was training course manager at Apple. "As increased competition in the software marketplace has forced programs to have more capabilities, the user needs more support to exploit the full capacity of the program."

"Program depth has changed," said Carl Haeberle, owner of The Mac Studio, a training center in San Francisco. "MacWrite used to be as complicated as it got. The machine is designed to be easy to use. But the heavier the program, the harder it is to learn to use."

Because most users do not like reading manuals, training is becoming a market unto itself. Tabb said it has been a niche that has not been addressed with any consistency.

"Government and business now are more sophisticated in their computer purchases," Tabb said. "They are educated in their needs, asking about the time it takes before the solution is a solution."

Racing to fill the gap are three basic types of training: programs and material generated by software companies as support for their products; training sessions offered by independent consulting services; and personal or self-regulated programs and tapes.

Each style of training fills certain needs. From the busy executive with time available in 15-minute snatches to workshops for a whole department, training programs must be ready to accommodate the wave of new users in the business environment.

The first breed of training developed out of independent consulting and service companies that saw the need for support and guidance with the newer sophisticated software.

Owner Glen Crusen said he does not believe the need is an entirely new phenomenon. "I believe most people do not know how to use their computer at its maximum level," he said. With training, "they could have 100-percent efficiency."

Aldus' PageMaker was the focus of the first Training Program — independent training agencies, authorized by Aldus, that both develop their own courseware and can buy Aldus' products to either use alone or with their own materials.

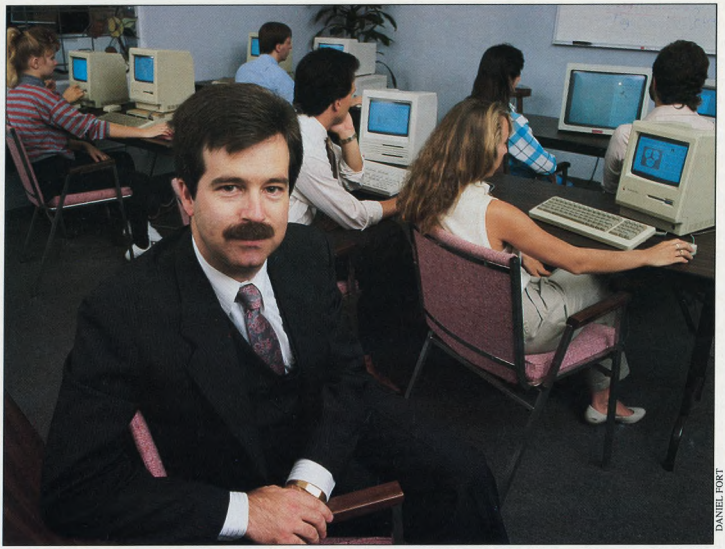
At the third level is support for third-party training products, including books, audio tapes, videos and computer-based training modules. These packages are for people for whom other types of training are impractical, said Hogan.

Personal Training Systems of San Jose, Calif., is the only company that prepares packages of self-regulated training sessions for a variety of Mac software, according to Susan Barton, president and course designer of Personal Training Systems.

"Our training packages capture the style of one-on-one training," she said.

Starting with Excel only one year ago, Personal Training Systems has sold more than 15,000 packages, including training for Microsoft's Word 3.01 and Works, PageMaker, and Living Videotext's MORE.

The packages include a disk, training tape and an outline of what is covered in each session. To adapt to the tight schedules of most business people, sessions last only 15 minutes.



DANIEL FORT

Glen Crusen: "Most people do not know how to use their computer at its maximum level." With training, "they could have 100-percent efficiency."

Training at Designed Graphics in Costa Mesa, Calif., started in fall 1985. The idea was promotional at first. Three years ago, Designed Graphics offered training sessions once a month. Now it has sessions every evening training program at Designed Graphics. The staff found it covered so much ground that it is still the only training session Designed Graphics offers.

"DTP (desktop publishing) is really learning many different programs," Crusen said. "It is design, word processing, typesetting. [Customers] need a view of the whole picture."

Desktop publishing has thrown the need for training into the limelight. The customer gets home and tries to do the work but never completely achieves what he sees on the stands.

Mechanics are only half the problem. The phrase "Now it is easier to make ugly documents" is why Aldus Corp. of Seattle has worked to provide training with PageMaker.

Among software publishers, Aldus has been at the forefront of organized training. It has developed a policy it hopes will set it apart from the pack. "As products become more and more similar in features, it will be the companies that will make the difference," said Sandy Hogan, Aldus' manager of training support.

The three-tiered training program at Aldus, started 16 months ago, covers most bases.

The first tier is instructor-led training products for PageMaker that are aimed at the educational market. This includes course material and software for instructor and student.

The second tier is the Aldus Authorized

Even Apple now says training will be its key to fully penetrating the business market. Apple's new Training Alliance (ATA) is a group of member organizations that will offer training for applications and help users understand the solutions available with Mac software.

The instruction is solutions oriented, said Anita Azewczak, Apple evangelist for the ATA. "The ATA is being formalized by Apple because we are hearing a demand for solutions training," she said. "A lot of companies are offering training, but it is the integration that gives you a desktop publishing solution."

Although training has just recently become a part of the Mac community, it has grown quickly and new methods continue to emerge.

"We see user groups having a role in end-user training," said Tabb. "The Department of Transportation employees (in California) are having training organized for themselves."

The business user has a certain number of employees that have to learn to use the Macintosh. Training can be lost company time. "When it was a home machine, it didn't matter," Haeberle said. "Now that it is a business machine, the management can choose training for their group: set up their own course or send them through organized training." ■

MONICA LEE

> "I wanted to do Mac training but was waiting for more sophisticated software to come out that would need training. That was (Microsoft) Excel."
>
> **SUSAN BARTON, Personal Training Systems**

A slice of the pizza market

Domino's turns to Macs to unite expanding empire

BY DIRK HANSON
Special to MacWEEK

ANN ARBOR, Mich. — With systemwide sales approaching $2 billion, Domino's Pizza Inc. has become the largest pizza delivery company in the world and one of the nation's fastest growing convenience food outlets.

To streamline communication between field operations and company headquarters at a stage of explosive growth, Domino's turned to Macintosh computers last November for an electronic-mail network that ultimately may link more than 3,600 franchise outlets, 13 regional offices and four area offices. What began as a dedicated use of the Macintosh for E-mail, however, soon grew to include word processing, spreadsheets, databases, desktop publishing and a host of other applications at corporate headquarters.

"Two years ago, I would have said that there's not going to be a Mac in this office, period," said Ron Bailey, information center manager for Domino's. "But the technology has changed, and now the Mac is here to stay." The information center, now 5 months old, is responsible for supporting the company's IBM System 36s and its 4341 mainframe, as well as all personal computer users at the chains' headquarters in Ann Arbor, Mich., and in the field.

Domino's E-mail system, known as Dominet, was launched as the result of a pilot program designed by consultant Richard Becker, president of Broadacre Network Inc. in Ann Arbor. The Dominet system was written for Domino's by General Electric Co. using a modified version of GE's Dealer Talk system. More than 100 Macintoshes have gone out to franchise owners so far, and recently the system was rewritten to also accommodate IBM PCs.

Within the next year, the company plans to add 200 Macs to its franchise network, bundling the machines with software packages to make them more appealing to store managers for applications beyond Dominet.

"To cut down on store paperwork, we're currently designing templates to be used with Microsoft Excel for doing food costs, labor and other calculations," said Bailey.

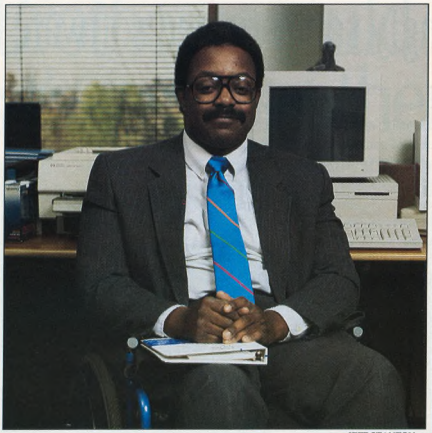
"The Macintosh is a natural for people in the field. A store manager doesn't have a lot of time to learn computers — and shouldn't have to. The advantage of the Mac is that it's so easy to use. A couple of hours of training per user, and they're ready to go," Bailey said. Eventually, Bailey said, he would like to see a Mac or a PC in each of the franchise stores.

Franchise owners were the prime movers behind the push for Dominet, but the decision to go with the Mac as the front end of the E-mail system was made at the executive level based on such ease-of-use factors as pull-down menus, icons and the mouse interface. According to Bailey, some initial resistance to the idea prevailed in the data processing department as the first Macs took their place on managers' desks, often side by side with existing IBM PCs.

"We got off to a bad start when people were led to believe that the only thing you could do with a Mac was Dominet," said Bailey. "It didn't make sense to have a machine that just did E-mail."

As with other companies with extensive franchise operations, Domino's use of the Macintosh began in the field, then spread backward into corporate headquarters.

"All of a sudden, the Macs came here into headquarters, and people wanted to do real work with them," said consultant Becker. "The communication need was the initial application, but the most important area where the Mac is going to start growing is in database use. PCs and Macintoshes can sit side by side efficiently and cost effectively."



JEFF STANTON

"The advantage of the Mac is that it's so easy to use. A couple of hours of training per user, and they're ready to go."

RON BAILEY, Domino's Pizza

Domino's currently has more than 50 Macintoshes in use at corporate headquarters, primarily SEs with 10-Mbyte hard disks, and plans to add as many as 50 within the next 12 months. Domino's also is experimenting with the open architecture of the Mac II. There are 350 IBM PCs throughout its franchise network, and Bailey said he foresees an eventual 50-50 mix of the two systems. "We're working to get our users bilingual," he said. At present, the company is using TOPS software from TOPS of Berkeley, Calif., for file transfer between the two systems.

Working with outside programmers, Domino's is just beginning to tackle the twin concerns of true networking and mainframe access at corporate headquarters. Initial plans call for an AppleTalk network using connectors from Farallon Computing of Berkeley, Calif., to tie the network into existing phone lines. "We're experimenting with networking here at headquarters before we go out to the field," said Bailey.

"Our PCs are tied into the System 36s and the mainframe, and we have Mac users who want the same capabilities. The main concern for me is can the Mac talk to a 36, can it talk to the 4341, and the answer is yes, with 3270 emulation," said Bailey. "It's just a matter of us doing it. Once we get the networking the way we want it, the Macs will be here in full force."

Becker said: "Ultimately, you want the novice user to get at the tools that normally only the MIS department can work with. What we're trying to do is preserve the Macintosh front end so that we can essentially hang any mainframe or database tool on it and use it for ordering and information sharing. Within the next 12 to 18 months, I think you'll be able to put a Mac front end on virtually any computer out there. With Hypercard and MultiFinder, a lot of things people want to do with a network are going to be standardized."

By the end of the year, Domino's plans to secure an outside vendor who can supply software and hardware as well as service and training support in a single package. Bailey said, "Apple comes in and works with us on training because right now we don't have the expertise."

For other companies wanting to integrate the Mac into a PC environment, Becker suggested setting up a pilot program that emphasizes communication applications. "You need to provide people with a place to park themselves and experiment. You start with communication needs, then back into other daily need," Bailey said.

Bailey stressed the need for prior research. "Find out if the Mac will work with the kind of network you want to set up, and make sure people understand that it's a different animal from the PC. We spend a lot of time and effort on training. That way users can support themselves," he said. ■

Domino's Pizza Inc. is using Macintoshes to link 13 regional offices, four area offices and more than 3,600 franchise outlets, including this one in San Francisco.

CAMILLE GOOD

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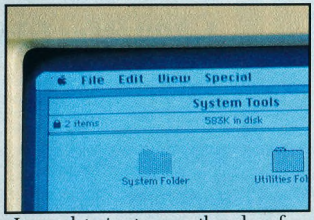

Image deteriorates near the edge of another company's FPD screen.

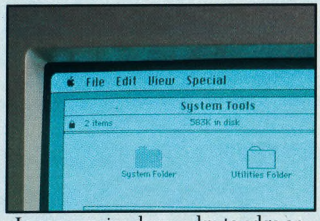

Image remains sharp, edge to edge on the Nutmeg/Xerox FPD.

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Hardware and software for the business Mac.

SOFTWARE

NCP denotes not copy-protected.
CP denotes copy-protected.

Aegis Development ... NCP
Doug Clapp's Word Tools ..... $42.
Affinity Microsystems ... NCP
Tempo *(power user's macro utility)* ..... 55.
Allan Bonadio Associates ... NCP
Expressionist *(equation processor)* ..... 52.
ALSoft ... NCP
DiskExpress *(maximize disk performance)* 27.
Altsys ... NCP
FONTastic Plus *(advanced font editor)* .... 49.
Fontographer *(Laserwriter font editor)* ... 245.
Ann Arbor ... NCP
FullPaint *(advanced Paint program)* ..... 49.
Ashton-Tate ... NCP
dBASE Mac 1.0 *(relational, req. MacPlus)* 299.
Batteries Included ... NCP
Thunder! 1.23 *(spelling checker)* ..... 32.
Berkeley System Design ... NCP
Stepping Out *(requires 512k)* ..... 55.
Blyth ... NCP
Omnis 3 Plus *(multi-user available)*..... call
Borland International ... NCP
Turbo Pascal Tutor ..... 49.
Sidekick 2.0 *(includes MacPlan)* ..... 59.
Turbo Pascal *(HFS compatible)* ..... 59.
Reflex Plus *(relational database)*..... 165.
BrainPower ... NCP
Graphidex *(DA graphics organizer)* ..... 69.
Designscope *(electronic circuit design)* .. 129.
MathView Professional *(num. analysis)*... 149.
StatView 512+ *(req. external drive, 512k)*... 179.
Bravo Technologies ... NCP
MacCalc *(easy to use spreadsheet)* ..... 79.
Broderbund ... NCP
Videoworks II *(graphics & animation)*..... 119.
CasadyWare ... NCP
Fluent Fonts *(two-disk set)* ..... 29.
Fluent Laser Fonts *(Vols. 1-15)* ..... *each* 48.
CE Software ... NCP
Disktop 3.0 *(powerful DA Finder)* ..... 35.
Centram Systems West ... CP
TOPS *(file-server/LAN software)*..... 125.
Challenger Software ... NCP
Mac3D *(3D graphics, CAD features)*..... 129.
Chang Labs ... NCP
Rags to Riches Led., Pay. or Rec. ..... 125.
Rags to Riches 3 Pak ..... 299.
The C.A.T. *(Contacts, Activities, Time)*..... 243.
Inventory Control or Professional Billing... 243.
Professional 3-Pak ..... 389.
Cortland ... NCP
TopDesk 2.1 *(7 new desk accessories)*..... 34.
Cricket Software ... NCP
Statworks *(statistical package)* ..... 75.
Cricket Graph *(multiple windows)*..... 125.
Cricket Draw *(advanced draw capabilities)* 175.
Data Tailor ... NCP
Trapeze *(spreadsheet, reqs. 512k)* ..... 159.
DataViz ... NCP
MacLink Plus *(transfer Mac/IBM data)*.... 159.
Digital, etc. ... NCP
Turbo Maccountant *(GL,A,P,AR,Payroll)*.... 259.
Dove Computer ... NCP
RAM Snap *(RAM Disk/Disk Cache)* ..... 24.
Dubl-Click Software ... NCP
World-Class Fonts! *(both Volumes)*..... 49.
WetPaint Clip Art *(both Volumes)*..... 49.
Enabling Technologies ... NCP
Pro 3D *(3D shaded modeling)* ..... 199.
Fifth Generation Systems ... NCP
FastBack Mac *(powerful backup utility)* ..... 59.
Forethought ... NCP
FileMaker Plus *(feature-packed database)*.. 149.
PowerPoint *(professional presentations)* ... 209.
FWB Software ... NCP
Hard Disk Backup or Partition..... 38.
Hard Disk Util *(program backup)* ..... 56.
Greene, Inc. ... NCP
QuickDEX *(address book)*..... $24.
Ideaform ... NCP
MacLabeler or DiskQuick ..... 29.
Imagine ... NCP
Smart Alarms *(DA reminder system)*..... 38.
Multi-User Smart Alarms..... 99.
Infosphere ... CP
LaserServe *(LaserWriter spooler)* ..... 65.
ComServe 1.0 *(modem sharer, NCP)* ..... 129.
MacServe *(AppleTalk software)*..... 165.
Innovative Data Design ... NCP
MacDraft 1.2A *(requires 512k)* ..... 159.
LaserWare ... CP
LaserWorks *(requires 512k, LaserWriter)* ... 199.
LaserPaint *(requires Mac Plus, LaserWriter)* 319.
Layered ... CP
Notes for...Excel, Works, or Word..... *each* 42.
Legisoft/Nolo Press ... NCP
WillWriter 2.0 *(prepare your own will)*..... 31.
Living Videotext ... NCP
More 1.1C *(outlines, windows, & tree charts)* 149.
Lundeen & Associates ... NCP
WorksPlus Spell ..... 38.
Macropac International ... NCP
101 Macros for Excel ..... 49.
Micro Analyst ... NCP
Mac Zap *(recover crashed hard disks)* ..... 36.
Microsoft ... NCP
Basic Interpreter 3.0..... 64.
Chart 1.02 *(42 chart styles, CP)* ..... 72.
Multiplan 1.1 or File 1.05 ..... 111.
Basic Compiler 1.0 ..... 119.
Fortran 2.2 *(compiler)* ..... 169.
Works 1.0 *(integrated tool)* ..... 189.
Excel 1.04 *(power spreadsheet)*..... 224.
Word 3.01 *(word processor)*..... 239.
Mindscape ... CP
GraphicWorks 1.1 *(newsletters, posters)*.... 48.
Monogram ... NCP
Dollars & Sense *(home, small business)* .... 81.
Odesta ... NCP
Double Helix II *(relational, custom menus)* 275.
OWL International ... NCP
Guide *(hypertext, free-form info)* ..... 79.
Guide Envelope System ..... 99.
Palantir ... NCP
inTalk *(communication to emulation)*..... 99.
PBI Software ... NCP
HFS Locater *(DA organizer for HFS)*..... 26.
HD Backup *(supports MFS, HFS)*..... 29.
Personal Computer Peripherals ... NCP
HFS Backup ..... 32.
ProVUE Development ... NCP
OverVUE 2.0 *(power-packed database)*... 149.
Satori ... NCP
BulkMailer 3.0 *(mailing lists)*..... 85.
BulkMailer Plus *(up to 90,000 names)*..... 199.
Legal Billing *(attorneys to accountants)*.... 385.
Legal Billing II *(full trust accounting)*..... 575.
Project Billing *(architects to engineers)*.... 445.
Silicon Beach Software ... NCP
Silicon Press *(printer utility, 512k)*..... 41.
SuperPaint *(advanced graphics program)*... 79.
SoftStyle ... NCP
Printworks *(print faster & in color)* ..... 49.
Software Discoveries ... NCP
Record Holder Plus *(data manager)*..... 45.
Software Ventures ... NCP
Microphone 1.1 *(includes Glue™)* ..... 119.
Solutions, Inc. ... NCP
SmartScrap & The Clipper or Glue..... 41.
SuperGlue *(total graphic integration)*..... 59.
SuperMac Software ... NCP
SuperSpool 3.4 ..... 49.
Diskfit *(backup & restore utility)*..... 49.
Network Diskfit *(automatic backup)* ..... 259.
SuperLaserSpool ..... 99.
Sentinel *(encryption)* ..... 99.
Multi-User SuperLaserSpool..... 259.
Survivor Software ... NCP
MacMoney *(financial planner)* ..... 42.
Symmetry ... NCP
Acta 2.0 *(outline/writing desk accessory)*... $38.
PictureBase 1.2 *(clip art manager, 512k)*.... 59.
T/Maker ... NCP
ClickArt Personal Graphics, Effects, Publications, Letters Vol. 1 or 2, Holidays, Business Image ..... *each* 28.
Bombay, Plymouth, or Seville Laser font ... 46.
Write Now *(word processor)*..... 99.
THINK Technologies ... NCP
HFS Navigator 1.0 *(search for buried files)* .. 39.
Laserspeed *(Laserwriter utility)*..... 59.
Lightspeed Pascal *(includes debugger)*..... 85.
Lightspeed C *(top-rated C Compiler)* ..... 99.
InBox Starter Kit *(CP)*..... 219.
TML Systems ... NCP
TML Pascal *(compiler, req. 512k)* ..... 68.
TrueBasic ... NCP
True BASIC *(fast, flexible & portable)*..... 59.
Algebra 1 or II, Trigonometry, 3D Graphics, Probability & MacFunction ..... *each* 35.
TrueSTAT *(statistics)*..... 58.
Runtime *(create stand-alone applications)*... 59.
William & Macias ... NCP
myDiskLabeler *(design & print labels)*..... 24.
myDiskLabeler w/Color *(req. Imagewriter II)* .. 33.
myDiskLabeler w/Laserwriter option ..... 38.
Working Software ... NCP
Lookup *(90,000 word dictionary)* ..... 29.
Findswell *(locate documents fast)*..... 29.
Spellswell 2.0 *(spelling checker)*..... 42.

HARDWARE

Manufacturer's minimum limited warranty period is listed after each company name. Some products in their line may have longer warranty periods.
Note: Some hardware items are available in either platinum or beige color. Please specify.

20 Meg SCSI Hard Drive *(120 days)*..... 569.
AST Research ... 6 months
AST Turboscan *(300 dpi scanner)*..... 1395.
AST 2000 *(20 Meg, 20 Meg tape)*..... 1395.
Curtis Manufacturing ... lifetime
Diamond *(6 outlets)*..... 29.
Emerald *(6 outlets; 6 ft cord)* ..... 36.
Sapphire *(3 outlets; EMI/RFI filtered)* ..... 47.
Ruby *(6 outlets; EMI/RFI filtered; 6 ft cord)*... 55.
Dove Computer ... 90 days
MacSnap 548S *(512E to 2 Mb w/SCSI Port)* 469.
MacSnap 2S *(1 Mb to 2.5 Mb, expandable)* 489.
MacSnap 4S *(1 Mb to 4 Mb)* ..... 969.
Ergotron ... 1 year
Mouse Cleaner 360° ..... 15.
MacTilt or MacTilt SE ..... 74.
MacBuffer 512k ..... 329.
MacBuffer 1024k ..... 429.
Farallon Computing ... 1 year
PhoneNET PLUS *(DB-9 or DIN-8)* ..... 39.
Hayes ... 2 years
Smartcom II *(communications software)*.... 88.
Smartmodem 1200 ..... 299.
Smartmodem 2400 ..... 449.
Kensington ... 1 year
Disk Drive Cleaning Kit..... 20.
Tilt/Swivel..... 22.
Universal Copy Stand..... 24.
Polarizing Filter or Surge Suppressor..... 34.
Apple Security Kit..... 35.
Printer Muffler *(80 column)* ..... 39.
System Saver Mac or Control Center..... 64.
A-B Box *(for the Mac Plus)* ..... 64.
Turbo Mouse *(for the MacPlus, SE & II)*..... 85.
Koala Technologies ... 90 days
MacVision *(digitizer)* ..... 175.
Kraft ... 1 year
3 Button Quickstick..... 39.
Migent ... 1 year
Pocket Modem *(ext. 1200 baud)*..... 169.
Mirror Technologies ... 1 year
Magnum 800 External Drive ..... 209.
Magnum Tape 20 Backup..... $899.
MagNet 30x *(w/cable)*..... 799.
MagNet 40x *(w/cable)*..... 1079.
MagNet 40/40 *(40 Meg, 40 Meg tape)* ... 2139.
Nutmeg Systems ... 1 year
Nutmeg FPD 15″ Monitor ..... 1395.
Nutmeg 19″ Monitor..... 1549.
Personal Computer Peripherals ... 2 years
MacBottom HD 21 Meg SCSI ..... 769.
MacBottom HD 32 Meg SCSI ..... 899.
MacBottom HD 45 Meg SCSI ..... 1159.
Optional built-in modems available ..... call
SoftStyle ... 90 days
MacEnhancer *(for plotters to printers)*..... 175.
Systems Control ... 2 years
MacGard *(surge protection)*..... 55.
Thunderware ... 90 days
ThunderScan 4.0 w/Power Port..... 199.

DISKS

Sony 3½″ DS/DD Disks *(box of 10)*..... 19.
Fuji 3½″ DS/DD Disks *(box of 10)*..... 20.
MAXELL 3½″ DS/DD Disks *(box of 10)*.... 20.
Verbatim 3½″ DS/DD Disks *(box of 10)*.... 20.
3M 3½″ DS/DD Disks *(box of 10)*..... 21.

ACCESSORIES

I/O Design
Imageware II *(Imagewriter II carry case)* .... 49.
Macinware Plus *(Mac Plus carry case)* ..... 69.
Macinware SE *(Mac SE carry case)* ..... 79.
Kalmar Designs
Teakwood Roll-top Case *(holds 45 disks)* ... 14.
Teakwood Roll-top Case *(holds 90 disks)* ... 21.
Moustrak
Moustrak Pad *(standard 7″ x 9″)* ..... 8.
Moustrak Pad *(large 9″ x 11″)*..... 9.
Sensible Softworks
Quality "MacAttire" nylon dust covers.... 7-17.
High Trek Mac Plus carry case ..... 59.
High Trek Mac SE & extd. kybd. carry case 69.

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Bonzer!

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MacBottom SCSI Drives can solve two of your system enhancement problems in one simple swoop. Not only do they pack 21, 32, or 45 megabytes (take your pick) in one very light *(but not lightweight)* package, but for a mere pittance you can get a Hayes compatible 1200 baud modem built right in. MacBottoms all arrive completely formatted. Here's what you have to do to get up and running. Pay close attention! 1. Take MacBottom out of box and place under Mac. 2. Plug it in. 3. Connect the cables. 4. Select the SCSI address. 5. Turn it on.

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Reflex (the multi-file database with organizing, reporting, and analyzing capabilities) has been cranked up a few notches with some significant new features: macros, auto-save, a powerful GroupBY function that groups records as you need them, and the capability to calculate fields as you enter data. There are also new multiple-entry forms as well as default formats—you can even enter data for more than one database from within a single form. Reflex Plus is the perfect way to turn all that disorganized data into useful information.

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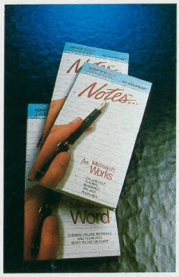

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$3 Overnight.

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The *only* exception would be in the event of extremely unnatural circumstances (i.e. massive computer failures, Marlow-wide power blackouts, etc.). Airborne Express handles the majority of our shipments and, in all but a few cases, will deliver the following day. Orders for delivery within UPS Ground Zone 1 will ship UPS and arrive the next day.

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The Macinware SE bag is the ultimate luxury luggage for your Mac SE. It has padded pockets for mouse, cords, keyboard, and a special compartment for a disk drive, modem, or accessories. It's better padded than a left tackle and built just as solidly. So you can safely and comfortably lug your Mac SE across field, hills and valley. (Or, just to your car in the parking lot). It's available in navy blue or platinum grey.

I/O Design
Macinware SE Carry Case **$79**

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Cricket Draw takes its graphics cue from the LaserWriter, not the Mac's display resolution. That means you can use a full 300 dots per inch when printing your drawings instead of a paltry 72. Big difference. Awesome difference. You can shade with a 0% to 100% gray scale, create shadows, logarithmic shading, starburst, grates, smooth curves, and just about anything else your left brain can dream up and convince your right brain it's worth doing. The output will blow both away.

(Figuratively speaking, of course).

Cricket Software (not copy-protected)
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It doesn't look like a modem. It looks like software— which it is. But ComServe can combine with a single modem to give an entire network telecommunications capability. You eliminate bundles of wire and bushels of expense, as everyone in your AppleTalk network can share a single modem.

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The road less traveled

Alain Rossman's route to Radius

BY JONATHAN LITTMAN
MacWEEK Staff

SAN JOSE, Calif. — The road to Silicon Valley is not always straight.

Before Alain Rossmann became Radius' vice president of sales, he led an army platoon of Tahitians in the South of France, studied civil engineering during the day, wrote computer games at night and, through a twist of fate, jumped continents and got a call from Steve Jobs to work on the then top-secret Mac.

If the 31-year-old bespectacled, cultured Frenchmen had done what was expected of him, today bridges might bear his name.

After growing up in Paris, Rossmann entered the famed engineering school Polytechnique. At 21, Rossmann served his obligatory one-year stint in the army. The young commander trained a platoon of French Tahitians to "jump and run, swing from ropes and do things you see on TV."

Meanwhile, engineering wasn't quite so exciting. On a summer trip to Los Angeles in 1978, he spied a TRS-80 Radio Shack computer in a window and was smitten.

Bored with school, Rossmann and two classmates started their own computer company. They had an Apple II, a TRS-80 and a Commodore Pet — and could program for nearly the whole French market, then about 10,000 machines. That didn't stop Rossmann from creating games at night and visiting stores during the day, convincing shopkeepers to carry his company's $20 programs.

Somehow he managed to graduate with his master's degree in civil engineering. Told of the wonders of Harvard Business School, Rossmann dashed off applications but ended up at Stanford University in Palo Alto, Calif.

Rossmann said he "started from zero" at Stanford. While others were discovering business, he was learning how the natives "live and think." Rossmann said that because he knew no one in the area, he was free from his own and others' expectations about what he should do.

In March 1983, the call came from Apple. Rossmann visited the Cupertino, Calif., company and had "the bizarre feeling that this was not a normal company." His interviewers kept saying, "We can't tell you what we're doing, but it's great!"

That same week, a special delivery package arrived at his door: a box of shiny Macintosh apples and a note saying, "We look forward to working with you."

Rossmann was then shown the real thing. He'd never seen anything like it. Rossman said even though there was no Finder and MacPaint was just a prototype, it was "unfair": The machine's potential was so great it was hard to even consider not joining Apple.

The final bit of courtship was an emergency phone call. Worried it might be bad news from home, Rossmann took the call, only to hear Steve Jobs, "this mythical person I had read about in France."

Rossmann began work the following Monday as European marketing manager. The next year, after the Mac's roll-out in early 1984, Rossmann led the evangelist group to "make sure there was something on the machine."

In May 1986, after three years at Apple, Rossmann was invited to the home of ex-Apple hardware wizard Burrell Smith. The designer of the Mac's digital electronics had created one of the first full-page displays for the Mac.

Like the Mac, the prototype was enough to rush Rossmann to sign on. It also didn't hurt that Apple marketing guru Michael Boich and software architect Andy Hertzfeld were part of the team.

When Radius Inc. opened in July 1986, the San Jose, Calif., company was much like Rossmann's old French outfit: There was one phone on the floor and a scant 1,000 square feet of office space. But Rossmann predicts Radius' sales will hit $2 million a month by December.

Still, Rossmann is taking care not to lose sight of the employee side of the equation. "We're trying to do what Apple did: treat people like kings," he said. ■

CAMILLE GOOD

When Alain Rossmann first visited Apple, he had "the bizarre feeling that this was not a normal company," he said.

Sherman Uchill: "I'm not a peddler, I'm really a techie."

Uchill: A hands-on manager

BY AVERY JENKINS
Special to MacWEEK

WELLESLEY, Mass. — His company headquarters are in the basement of a nondescript office building just off Route 9, between Boston and Framingham, Mass. Outside, all is quiet. Inside, the place is humming.

The receptionist is on the phone, writing down orders called in by a salesman on the road. In the background, a technical support specialist is explaining how to format a disk. People whiz by calling out requests and orders. Mercenary shock troops in Sherman Uchill's war to educate American corporations.

Uchill, entrepreneur, visionary, cheerleader and founder of the successful computer retail firm, Sherman Howe Computer Center, thinks corporate America has been screwing up. Wearing a suit and a tie that is destined to be loosened before noon, Uchill explains the problem. Back in the early '60s, he said, he first conceived of using the computer not just as keeper of the payroll and general data repository, but as a management tool.

"They told me I didn't know anything," said Uchill, who graduated from the Massachussetts Institute of Technology with a degree in aeronautical engineering. "They discarded this idea as stupid, useless or worse."

Management use of the computer has come a long way since then. But although micros sit on a lot of managers' desks, they still are not being used, Uchill argues. "The major problem in effective use of computers by management is not technical; it's cultural," he said.

Business schools, he said, do not teach students a "vision of success" that includes the computer. These schools produce managers who envision a big office with a clean desk because "what they teach people is that a good businessman delegates responsibility and authority ... that's the culture that we try to inculcate."

Uchill twists in his chair, throws his arm over the back and pitches his fast ball at what he calls that "pursuit-of-excellence crap."

"The fact is that in today's world, that is not the way to run a business if you are going to be a great manager," he said.

Especially not in Uchill's world. Sitting in the conference room, one can sense the employees buzzing outside needing to consult with him and the telephone messages scribbled down by the receptionist. Uchill is anything but a hands-off manager.

Uchill claims to be in the wrong business. "I'm not a peddler, I'm really a techie."

That's news.

Sherman Howe Computer Center sells Apple. The Macintosh and the HyperCard are the closest anyone has come to Uchill's vision of the creative business use of the computer.

"Any logical soul will use the Mac," Uchill said. He adds that what Apple has done by not simply following IBM's lead is "highly risky, but the risk is worth it."

Manufacturers of IBM compatibles, he said, will fade away. They have in the past, and they will again. Compaq, the leading vendor of IBM PC compatibles, "is going to have major troubles," Uchill predicted. "If you want to take a long-term view ... you have to take the risk — the personal risk and the money risk."

In selling the Mac, Uchill is taking a risk. He faces not only the danger of an uphill battle in a high-stakes market, but danger from Apple itself.

"Our risk is this: If Apple does things that are not in my best interest, then I'm out of business. It's happened in the past," he said, referring to Apple's previous troubled relationships with its retailers.

But if Sherman Uchill went out of business, it is clear that he would go out fighting. He has waged a 20-year war, and he shows no signs of quitting. ■

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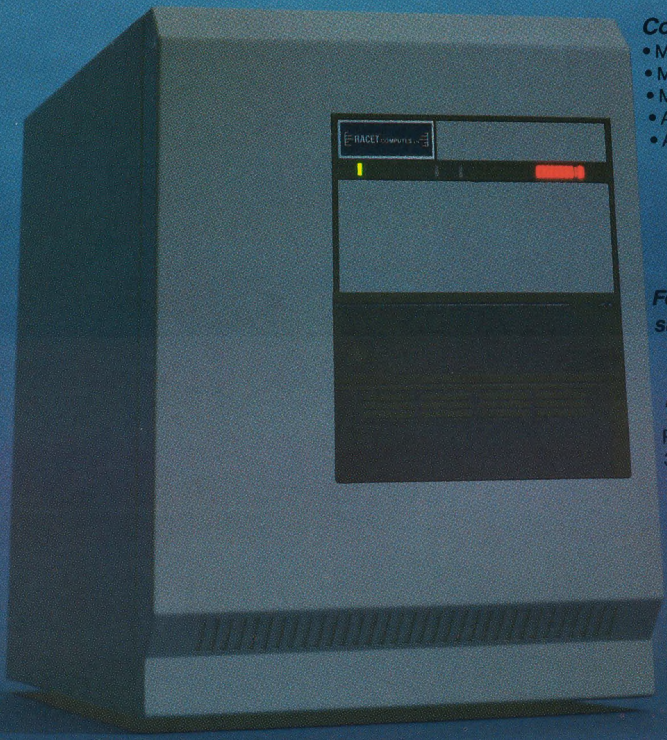

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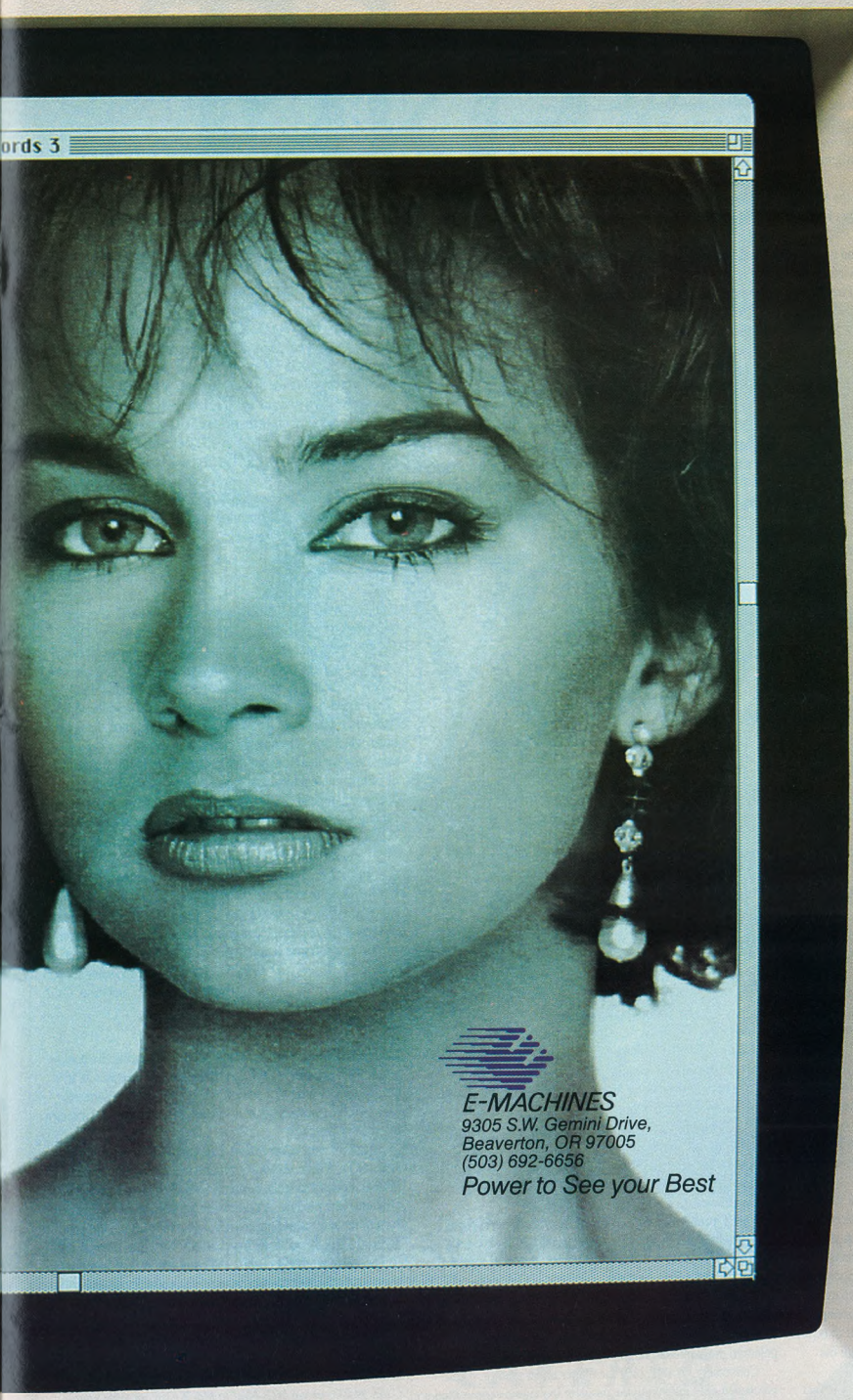
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Adobe wants a 'do-over' on PostScript rules

"The general idea of utilizing a page description language is in the public domain. Anyone is free to devise his own ... page description language." So begins the recent Adobe statement concerning copyright and trademark rights on the PostScript page description language (PDL).

Sounds great, but it's about as generous as saying the idea of using levers is in the public domain and that everyone is free to invent his own crow bar.

Adobe states its intent is to protect its copyright and trademark rights to both PostScript PDL and its PostScript interpreter as well as to protect the public from confusion about PostScript.

The company also says it does not intend to exclude anyone from writing interpreters for the PostScript language. Efforts to clone PostScript, Adobe spokesmen have said, "are nothing more than good, old-fashioned American competition."

If competition is the game and serving users one of the goals, there should be rules. However, a game in which the leading player changes rules after the game has started is not fair.

Adobe's leaders were universally acclaimed for having the foresight to place PostScript PDL in the public domain. That move was pivotal in making PostScript the industry standard.

Now Adobe would have us believe that the notion that PostScript PDL is in the public domain is due to the imprecision of Adobe spokesmen in describing the situation. But Adobe spokesmen have been saying the words "public domain" in reference to PostScript PDL since 1984. Adobe may wish it had not said those words, but it did. And what is done is done; "do-overs" may work on a playground but are hardly appropriate in industry.

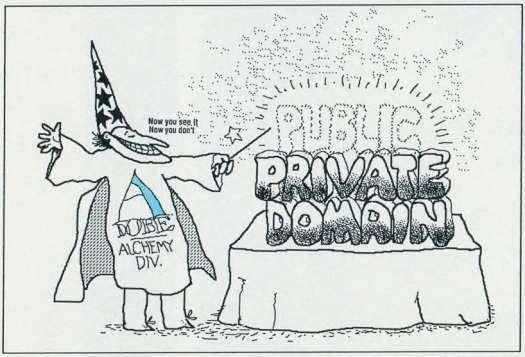
The company offers developers of PostScript-compatible interpreters a written copyright license. But how can Adobe license something that is in the public domain? What Adobe says is an attempt to protect the integrity of PostScript PDL looks more like an attempt to protect itself from competition.

This is not to say Adobe has not raised valid issues or that the company has no right to do what it can to protect the integrity of the PostScript standard. It is in everyone's best interest to ensure that when someone says a product is PostScript-compatible, users will not have to think about what that means.

The way Adobe's statement reads now, despite disclaimers to the contrary, it is easily conceivable that innovation in the PostScript language and interpreters will be limited to Adobe. If this is so, the industry and users would be dependent on a single company for progress and change.

But PostScript is too essential to be controlled by any one PostScript developer — Adobe or anyone else. One suggestion has been to create an independent association of users to ride herd on all PostScript developers, certify PostScript compatibility of interpreters and define what innovations should become part of the standard.

Other industries manage to regulate themselves. In an industry based, as this one is, on the human interface, users have the right to fair, independent, enlightened regulation and the right not to be subjected to strategies of fear, uncertainty and doubt. ■



LOUIS DUNN

Buyers should have been told of II's ROM restrictions

Apple's handling of a problem restricting the usefulness of the Mac II's expansion slots raises troubling questions about the company's candor.

The matter concerns the Mac II ROM's allotment of CPU address space to NuBus expansion boards. Instead of using full, 32-bit addressing to access data stored on the expansion boards, the ROM's Slot Manager runs only in a 24-bit mode.

In the 24-bit mode, the CPU can address just 1 Mbyte of data for each expansion slot, not the full 16 Mbytes the NuBus architecture allows. Also, because Apple's design rules require that the information that identifies expansion boards to the system be located at the top of the 16-Mbyte address space, some boards, including announced products from National Semiconductor and RasterOps, are not recognized as existing at all.

The Mac II's 24-bit addressing makes it compatible with the data path architecture of other Mac models. Apple apparently decided to release the Mac II with only the emulation mode operational while engineers finished the 32-bit Slot Manager.

We won't argue that point. It is better to have an important new machine out now than to delay it while finishing up every detail. But why did Apple wait until Sept. 1 before notifying board developers, and then just a few? Were users ever to be told of the problem? Now that it is out in the open, when will the ROM patch be ready and how will upgrades be handled?

We don't want to blow this issue out of proportion. The fact is that the limitation will affect only a fraction of Mac II owners, especially in the interim period before the ROM is changed.

Nevertheless, it is clear that Apple was less than forthright about acknowledging the problem. By privately notifying only a handful of developers, Apple was unfair to other developers who may have been working on boards without knowledge of the limitation.

It also was unfair to those Mac II buyers who are looking for 32-bit expansion boards today. If buyers will have to bring their systems back to dealers for an upgrade, they were entitled to know that when they bought these systems.

This gets to the heart of Apple's problem. The company did not want to make public a problem that could delay sales, especially since the problem concerns a limited set of buyers. Announcing the problem could cause other buyers, who would not be affected, to put off their purchases.

That's a concern we can sympathize with. As strong believers in the Mac II, we hope Apple is able to quickly get a great many into users' hands so that developers will have a market for innovative products.

But a public admission of the ROM limitation need not have killed sales. By candidly addressing the issue and placing it in its proper perspective, Apple could have alerted users to a potential problem without raising undue alarm.

Conversely, by sweeping the matter under the rug, Apple succeeded only in making the problem look more serious than it was when it inevitably became public. ■

To The Editor

In defense of Apple support

In defense of Apple, I must take exception to your Oct. 13 editorial titled "Apple lagging behind in technical support." I won't bore you with the history of my programming experience, but it is extensive. In my experience with computer manufacturers, I have found Apple's technical support to be good to excellent. For a company the size of Apple, its support is unmatched.

I've worked with both Microsoft and IBM, and their support is both expensive and lacking. Microsoft's DOS support consists of the statement, "We don't support our operating system that you paid for; your OEM does." Unfortunately, my OEM for DOS is, guess who? IBM. IBM has yet to answer any technical question about DOS for me or any other programmer I know. Apple, on the other hand, will give free, unlimited technical support for its systems to anyone developing a legitimate product for its products through its Certified Developer Program.

My outpouring for Apple's good technical support should not be taken to mean that it is perfect and couldn't improve. Far from it. In fact, I have sent Apple numerous letters suggesting how it could improve its support. Still, for my money, Apple has industry-leading engineering support for its products that others should strive to emulate.

Scott Taggart
Pine Grove, Calif.

I would like to educate the misinformed individual who wrote the editorial "Apple lagging behind in technical support" (Oct. 13). The most innovative technical support tool in the personal computer industry today is provided by Apple to our dealers by way of an electronic information system called "AppleLink."

This real-time, on-line system provides every dealer with immediate answers to technical questions. However, there are times when only a technician can answer a customer's questions, and we therefore provide each dealer with the capability of calling our technical assistance centers. It is true that customers cannot call Apple directly for these answers because we are committed to a strong partnership with our dealers and we want them to provide direct support to our customers as part of their value-added services.

The comparison made between mini or mainframe manufacturers and PC manufacturers' capabilities to provide telephone assistance is an (excuse the pun) apples-and-oranges argument. Customers pay thousands of dollars for service contracts from mini and mainframe vendors for access to their phone centers.

Gerald T. Devlin, director, sales support
Apple Computer, Cupertino, Calif.

Expert systems benefits

MacWEEK's otherwise excellent article "Balancing the books with expert systems" (Sept. 15) contained one inaccuracy. It stated: "The Big Eight reportedly pour $200 million annually into R&D of smart software. None has made a substantial return on the investment."

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Robert H. Temkin, partner
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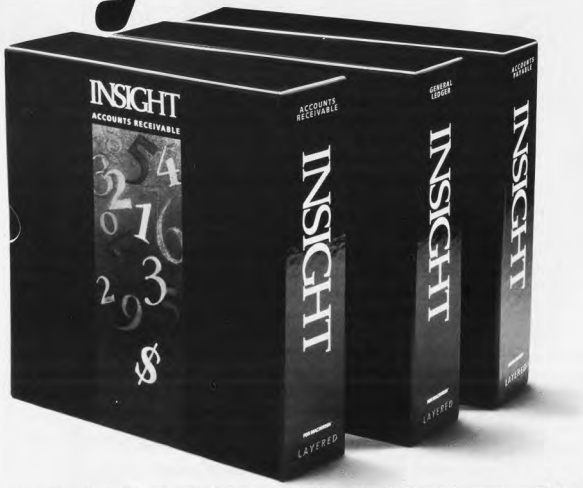

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VISIBLE RESULTS

Steve Rosenthal

If you feel only work done exclusively on a Macintosh is worth looking at, you can stop here. I'm going to talk about mixing Macintoshes and PCs. I mix the two quite a bit these days, and I've found that this has its ups and downs.

For many of us, the question is not whether to mix Macintoshes and PCs, but how best to do it.

On the technical side, the problem of mixing Macs and PCs seems increasingly tractable. From relatively low-tech solutions, such as using a modem or direct serial connections to pass files between machines, to the high-tech networks and interlinked file systems that form transparent bridges between machines, getting the raw data across gets ever easier. (See Window On PC Connectivity, Oct. 13, for a good review of many of the file interchange choices.)

Simple file exchange, though, is only part of the story. To have Macintoshes work closely with PCs, you also have to take into account the differences in file naming, resources, logical structure and program availability.

File naming is the easiest part. If you're going to actually exchange files — not just file contents, but the files themselves with their complete ID information — you have to use file names that both Mac and PC systems find acceptable. PC systems allow one- or two-part file names, with eight characters in the first part, three in the optional second part and a period between the parts. No blanks are allowed, nor can you use a number of specified punctuation marks.

That means none of the longer, descriptive names you might have been using on the Mac will fit. More importantly, in going from Mac to PC, most of these exchange systems pick the first 11 acceptable letters from your Mac file name for the PC file's moniker. So if you have a group of Macintosh files that start with the same word or two, their PC file names may all come out the same. That, in turn, may cause each one to overwrite the last during a file transfer.

PC systems also lack any explicit means of saving a file's creator program or file type. (Some programs do use the last three letters of the file name.) That may sometimes be a boon on the PC, since you can open a file with a program quite different than the one that created it. But when PC documents arrive on the Mac, most translator programs usually create plain, generic Mac documents, and you then have to go through various Mac program-opening dialog boxes about file conversion to open the document. And as a side effect, often that means you have to manually name or rename the file.

On the resource side, the difference is even sharper. Mac files can have a separate section that includes resources such as fonts, sounds, icons and dialogs, while PC systems won't get this feature until the next revision of the forthcoming OS/2 operating system.

Translations are always difficult when there's no direct equivalent on one side for a frequently used concept in the other, and resources play a central role on the Mac. That's one reason why many translation programs between Macs and PCs can transfer plain text or simple formatting, but lose many of the less linear and more "Mac-ish" elements when taking files to PCs and why files arriving from PCs seem so plain.

It also is one reason why specifically targeted translators, such as MacLink Plus from DataViz, can do a much better job than the more generic models even with files that outwardly appear very similar. Although it may be a hassle to find a special translator program for each pair of Macintosh and PC programs that doesn't have a built-in common file format, it may be the only way to fully preserve the information.

Which brings us to program equivalence. You can't use a Mac program on a PC or vice versa, even if you can bring files created with it across, but you often find matched programs or rough equivalents.

I've found a number of pairings that work well together. (If you have an unusual favorite set, drop me a line at MacWEEK about it.) But since program equivalence doesn't always mean easy file exchange, we'll save the details for another column. ■

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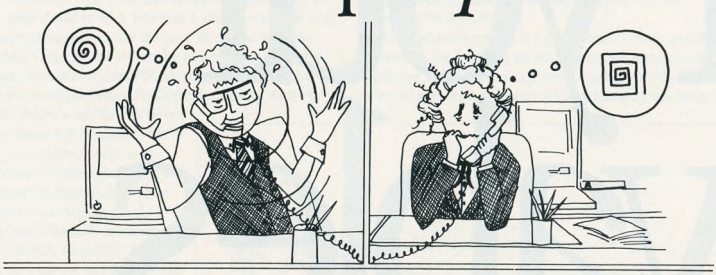

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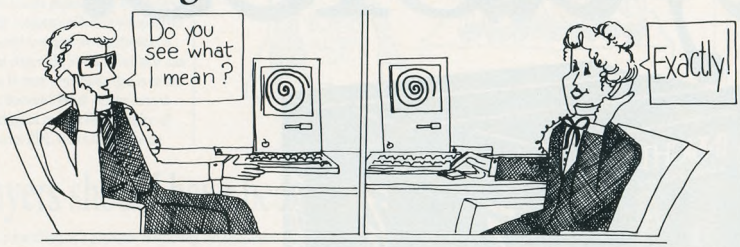

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THE LONG VIEW

Lawrence Magid

I finally decided that it was time to buy a new-generation Mac. In my case, the choice was easy. I wanted a machine that is transportable, affordable and compatible with the vast majority of Mac software. I went for the SE.

The hard part was deciding between the two SE models. It comes in two flavors. Either you buy a machine with one 800-Kbyte disk drive and a 20-Mbyte hard disk or one with two disk drives and no hard disk. I wanted an internal hard disk, but 20 Mbytes isn't enough for my needs. Besides, Apple's hard drive is slow compared with others on the market.

What I really wanted was an SE with one disk drive so that I could select my own internal hard disk on the open market. No deal. (Apparently, Apple doesn't belong to the "have it your way" school of design.)

I was forced into an unnecessary dilemma. Apple should follow the lead of IBM and most other manufacturers by allowing users to select the drive(s) that are best suited to their needs. Some people will be very happy with Apple's hard disk or two internal floppies. I need at least 40 Mbytes and prefer a drive with a faster access time than the one supplied by Apple.

Nevertheless, there are a number of internal hard drives to choose from. In some cases, however, you are required to purchase a two-drive system and give up one of your floppies. Some dealers will offer you a rebate on the top internal drive if you order a non-Apple hard disk at the time of purchase. One company that sells through the mail offers a $100 rebate if you send in your old internal floppy. A nice gesture, but hardly compensation for an external drive that retails for $200 or more.

Another manufacturer has found a way to install a hard disk that cohabits with two floppies. I wasn't able to test it, but it sounds like a good idea, as long as it doesn't overheat, draw too much power or interfere with expansion boards that you might later plug into the SE.

The most creative idea comes from Peripheral Land, a Fremont, Calif.-based company that manufactures internal and external hard disks for all Macintoshes. Like Apple's internal drives, Peripheral Land's drives require that you remove the top floppy. However, included in the cost of the drive is a case and a cable that turns your old internal drive into a usable external drive.

I would have felt a little foolish buying a machine with two drives and then shelving a perfectly good component just because it would no longer fit inside the box.

Besides, having a second drive can be very handy. Having two drives speeds up copying disks and files as well as operating some hard disk backup programs. What's more, the second drive can be a life saver if your internal drive malfunctions.

If you don't want the drive, you can sell it or give it to a colleague. The 800-Kbyte drive will work with any Mac.

I'm now using Peripheral Land's 50-Mbyte PL50iTurbo hard disk and am very happy with it. It's fast and, so far, very reliable. Although the SE's fan is noisy enough to drown out almost any device, the drive itself is very quiet — something I'll undoubtedly appreciate if I ever figure out how to hush the Mac's fan.

What Apple did wrong with disk drives, it made up for with its keyboard policy. Users are free to choose a standard ($129) or extended ($229) keyboard from Apple, or buy an SE or Mac II with no keyboard and shop the open market, which is what I did.

I got the Mac 101 Keyboard from Datadesk International of Van Nuys, Calif. Its layout is similar to Apple's extended keyboard (both Datadesk and Apple copy the layout of IBM's newest keyboards).

What impresses me is its feel. Datadesk is the first company, other than IBM, to provide excellent tactile feedback, so important to touch typists. At $169.95, it is $59 less than the Apple Extended Keyboard and only $40 more than the standard keyboard. The Datadesk boards come with a macro program that lets you assign commands to the 15 function keys or regular keys when used with the Option and/or Command key.

Datadesk makes an identical version for Mac Plus and 512K models — welcome news for anyone who has grown tired of the original Mac keyboard design. ■

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WINDOW ON GRAPHICS SOFTWARE

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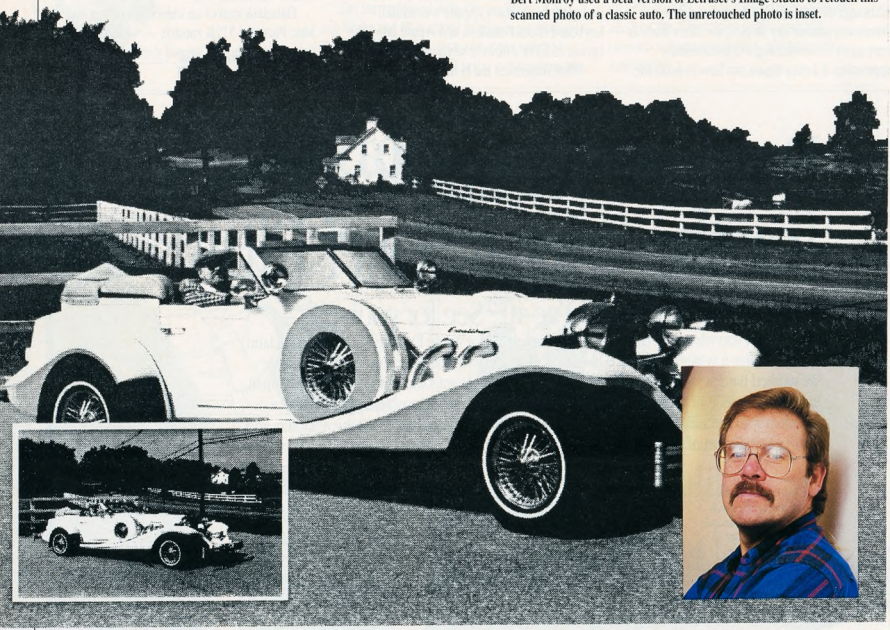

Bert Monroy used a beta version of Letraset's Image Studio to retouch this scanned photo of a classic auto. The unretouched photo is inset.

BY LAWRENCE STEVENS
Special to MacWEEK

Trici Venola has been a Los Angeles-based pen-and-ink artist for nearly 15 years. While at a client company two years ago, she was invited to try the firm's new Macintosh and MacPaint. Although she was on her way to an appointment and could afford to spend only a few minutes with the program, she was still working at it two hours later. Ironically, it was not the computer's versatility or ease-of-use that held her captive, but rather her frustration: "I just couldn't get it to do what I wanted," she remembered. "It infuriated me, but it also challenged me enough to stay with it."

For Venola, it was not a question of learning how to use the program, which was easy. Her problem was getting used to drawing with the mouse. She said that "it felt like my hand had been cut off and replaced with a hook."

Venola gradually acquired the knack, and once she did, the advantages of drawing with a computer instead of with pen and ink caused her to become a full-time computer artist. One of her specialties is creating computer clip art, which she has done for the Mac the Ripper series from Miles Computing of Canoga Park, Calif., and the Comic Strip Factory from Foundation Publishing of Eden Prairie, Minn. "Using the computer is clean, neat and fast. It's hard to imagine going back to working with pens and erasers," she said.

Venola still uses paper and pencil for rough sketches. "I can't use the computer as the art form. For me, it's a copying tool," she said. And when she wants to create fine pen and ink drawings, she uses real pens and inks. But for commercial work, she said that "the computer is the most efficient way to draw."

Mac goes commercial

Most graphics software users agree that the Mac cannot replace the easel and brush of fine artists, but it has all but replaced the compasses, rulers, mechanical pencils and inks of many commercial design houses.

Spiegelman Design Associates in San Francisco has been designing publications, such as magazines and corporate communication pamphlets, for 14 years. Two years ago, when designing the desktop publishing magazine Publish!, Marjorie Spiegelman, the company's president, began using Mac-based graphics software. Since then, she has picked up most of the graphics software available for the Mac. Her company's use of paper and ink has decreased and its efficiency has increased.

Spiegelman points to the Mac's flexibility. "Using the Macintosh has given us greater control of all aspects of design creation. For example, we used to sketch something in pencil. Then we'd call in an artist who was good with ink and acetate and he or she would fill it in," she said. "Now we do everything from sketch to finished, inked-in design on the computer. We don't have to worry about scheduling free-lancers. But more importantly, we can allow ourselves more freedom to experiment, to try things out. 'What if this line were half a point wider or narrower?' 'What if we skewed this shape just a bit?' It allows us to be more creative."

Spiegelman has not settled on any one graphics software package, nor does she intend to. "Just as we couldn't use just one type of ruler or pen in our former lives, we can't use one type of software now. Each package has something that the others lack, and each lacks something. From experience I'm learning which program is best for which job," she said.

Paint programs

Although each graphics program has unique features that make it best for specific applications or tasks, programs can be grouped into three broad categories: paint; draw; and specialty software, such as combination paint-and-draw programs and PostScript illustration programs.

A paint program addresses and manipulates each pixel — the tiny, almost invisible dots that make up the screen. On the Mac, there are 72 pixels per inch. If you draw a 1-inch square using 1-pixel-wide lines in a paint program, you are really darkening four rows of 72 dots. With a paint program, you can then manipulate each dot by erasing it. These programs also have specialized tools — for example, airbrushes and paint brushes with customizable shapes — that address individual pixels.

While Apple led the parade with MacPaint, introduced with the Macintosh in 1984, other companies have expanded and updated the paint program, often adding some characteristics of draw programs as well. Ann Arbor Softworks of Ann Arbor, Mich., has the most notable MacPaint competitor with FullPaint, a basic enhancement to MacPaint, and SuperMac Technology of Mountain View, Calif., is preparing a color paint program for the Mac II called PixelPaint.

Draw programs

A draw program represents images through lines, curves, vectors and shapes instead of dots. If you create a 1-inch square with a draw program, the software treats it as an integral unit (or object) rather than a series of dots. Thus, you cannot erase or alter a portion of it at the pixel level as you can with a paint program. But you can manipulate the entire object in ways that are difficult or impossible in paint programs. You can, for instance, rotate, scale, or connect and disconnect figures much easier in a draw program than in a paint program.

Combination paint and draw programs

The line between draw and paint programs has become fuzzier as some software companies have found ways to allow paint and draw functions to be used on the same file with layering techniques. This involves keeping the bit-mapped images of paint aspects on one layer on the screen and the object-oriented aspects on another layer. Combining these functions allows more flexibility in creating graphics documents.

Of the combination programs, San Diego-based Silicon Beach Software's SuperPaint is the most well-known. Mindscape Inc. of Northbrook, Ill., sells a program called GraphicWorks that offers paint and draw features. Deneba Software of Miami also has a combination program called Canvas.

Bert Monroy created this highly detailed picture of a cassette player with Adobe Illustrator.

A problem with combined paint and draw programs is that the manufacturers have to make compromises to provide both features. For that reason, mechanical artists prefer draw programs since they use precision measuring tools when they work with paper. Paint programs are more suited to the freehand pen and airbrush set.

Output choices

Before deciding on a paint or draw program, artists also must consider the output device they will use. The Mac screen's 72-dpi resolution duplicates that of the ImageWriter dot-matrix printer from Apple. So if you use a paint program, bit-mapped output on that printer will exactly reflect the screen. But if you output to Apple's 300-dpi LaserWriter, some elements, especially curved surfaces, will appear jagged on the hard copy. This effect will be lessened when a document is output to a higher-resolution output device, such as the Linotronic 300 from Linotype Co. of Hauppage, N.Y.

Images created with draw programs, which do not refer to screen pixels, tend to print more clearly on high-resolution devices than those created with paint programs.

Another consideration is that both the LaserWriter and Linotronic use Adobe Systems Inc.'s PostScript page-description language. Most Mac graphics programs, both draw and paint, use Apple's internal QuickDraw graphics routines, which are then converted to PostScript. But much information is lost in the translation. Again, there may be problems in transporting exactly what you see on the screen to your paper.

For this reason, many designers have gone to programs that are specially tuned to PostScript. Cricket Draw from Cricket Software Inc. of Malvern, Pa., and Adobe's Illustrator most completely use PostScript and therefore allow for the most flexibility and quality on the LaserWriter and the Linotronic.

Because the two types of graphics software do different kinds of jobs, programs that combine drawing and painting applications in one package are often purchased by those who have a range of applications and who want to buy only one product. These users tend to not be artists — who normally need more specialized products — but those who want to replace graphic artists with graphics software.

Joe McKenzie, vice president of McKenzie Technology of Fremont, Calif., which manufactures connectors for the electronics industry, has this objective. Although McKenzie admits he is hardly an artist, he has made some impressive artwork with SuperPaint. Using the program, he and his associate created a 192-page catalog with text and graphics, a project that would have been substantially more expensive and time consuming had he hired a graphic artist to produce it.

McKenzie now uses SuperPaint for almost every computer application — from creating internal shop drawings to correspondence and quotations.

"We use the program 18 hours a day. It's not exactly like having an in-house designer, since we do have to create the input, but it eliminates our need to hire outside designers," he said.

McKenzie primarily uses the LaserWriter for output. SuperPaint's ability to output with a minimum of jagged edges — even in the paint layer — is another advantage for him. SuperPaint's solution, called LaserBits, allows you to edit a bit-mapped image at 300 dpi in a special LaserBits document. That file, a full-size document, allows use of all the paint tools. With LaserBits, a document can be created from scratch or pasted from a SuperPaint document.

While LaserBits helps bridge the gap between screen resolution and 300-dpi resolution, there are drawbacks. A pasted window, for example, is enlarged eight times, making it unwieldy; and once a LaserBits-created object is transferred to a regular SuperPaint document, it can be moved but not altered. Also, you do not see on the screen exactly what is printed by the LaserWriter, which can lead to unpleasant surprises.

But McKenzie said he believes that he has overcome these limitations with time and experience. "Over time, we've become fairly accustomed to compensating for the variances between the screen and

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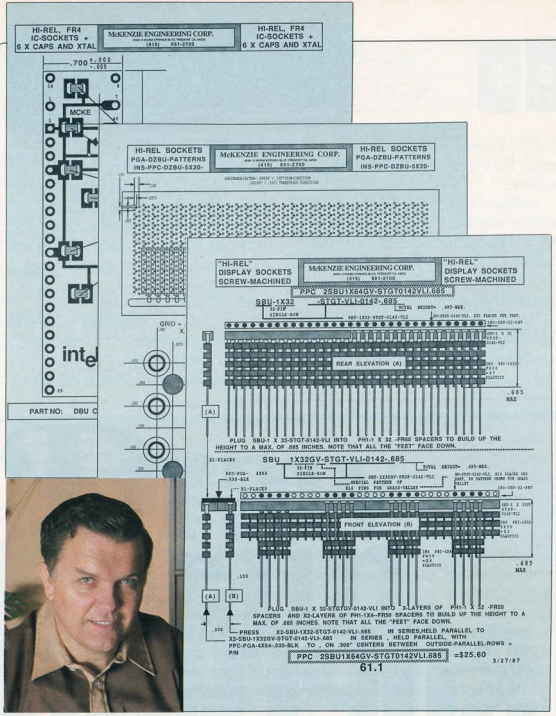


These pages from the McKenzie Technology 1987 Master Catalog demonstrate the impressive results Joe McKenzie and his associates achieved with SuperPaint. "We use the program 18 hours a day. It's not exactly like having an in-house designer, since we do have to create the input, but it eliminates our need to hire outside designers," McKenzie said.

When artist Trici Venola first tried using a Mac, she had problems drawing with the mouse. She said that "it felt like my hand had been cut off and replaced with a hook." However, as these graphics created with SuperPaint, called Taj Majal and First Day (inset), show, she has long since gotten over that initial impression. Now, for commercial work, she said that "the computer is the most efficient way to draw."

Continued from previous page

printer. But it does bite us in the tail every once in awhile."

McKenzie was introduced to SuperPaint when he transferred from the Apple Lisa to the Mac and was told that SuperPaint was close to LisaDraw, the draw program for that computer. He found it to be so similar that he has yet to spend time with the SuperPaint manual.

"I learned to use the program solely from the screen display. The only time I've peeked into the book was to find out if something could or couldn't be done," he said.

Dan Dugan, president of Sound Design in San Francisco, is another non-artist who is producing sophisticated artwork on his Mac. His company manufactures audio mixers, and he uses GraphicWorks to create the documentation for his products as a comic strip. Dugan is not a cartoonist, but he has been able to combine GraphicWorks with clip art to create the comic strip characters he needs.

"It's as easy as moving pieces around in a jigsaw puzzle. I use primarily one character, and I just change the angles," he said.

GraphicWorks also allows for painting at 300 dpi, although it too has some of the same problems as SuperPaint.

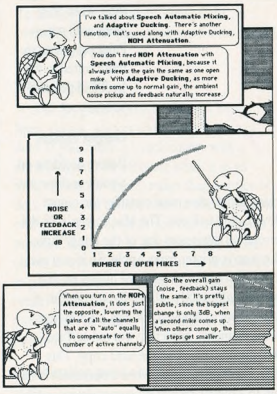
PostScript support

While many programs support PostScript to some degree, the most complete PostScript support is found in Cricket Draw. While the original development plan was to take Apple's MacDraw and tailor it to PostScript, Cricket Draw has gone far beyond mimicking MacDraw — many users point to its strong object-oriented drawing capability as its best feature. Graphics designer Spiegelman said, "When we have heavy mechanical drawing requirements or if we need really good output, we normally use Cricket Draw."

Cricket Draw has tools missing from many programs. It automatically draws parallelograms, parallel lines and concentric circles, and has other special effects. It allows for finer manipulation of images than other programs. Objects can be rotated or skewed to any angle. (Most products allow for rotating but not skewing.) The program gives control over line width and patterns; the thickness of a line can be set from half a point to 99 points; and objects can be filled with gradations of gray ranging from no fill to a 100-percent (black) fill.

Another unique feature of Cricket Draw is that it provides a good deal of flexibility in handling text on the screen while maintaining the character outlines of PostScript text. You can rotate or skew the text or print in any shade of gray or even place text along a path — although it cannot show an actual representation of it on the screen.

The one problem with Cricket Draw, according to some users, is that it doesn't have a pattern palette like the ones found in paint and draw programs. This is one of those compromises that you have to make in a specialized program. In this case, the problem stems from the fact that Cricket Draw is optimized


I've talked about Speech Automatic Mixing, and Adaptive Ducking. There's another function, that's used along with Adaptive Ducking, NOM Attenuation.
You don't need NOM Attenuation with Speech Automatic Mixing, because it always keeps the gain the same as one open mike. With Adaptive Ducking, as more mikes come up to normal gain, the ambient noise pickup and feedback naturally increase.
NOISE OR FEEDBACK INCREASE dB
NUMBER OF OPEN MIKES
When you turn on the NOM Attenuation, it does just the opposite, lowering the gains of all the channels that are in "auto" equally to compensate for the number of active channels.
So the overall gain (noise, feedback) stays the same. It's pretty subtle, since the biggest change is only 3dB, when a second mike comes up and when others come up, the steps get smaller.

Dan Dugan, president of Sound Design, uses GraphicWorks to create the documentation for his company's audio mixers in the form of a comic strip.

for PostScript. Bit-mapped patterns cannot take advantage of the device-independent resolution that PostScript provides and slow down printing. Instead, Cricket Draw's gray-scale feature, which is used throughout the professional typesetting industry, reproduces well on PostScript devices.

Although it's unlikely many illustrators will take the time to learn the language, Cricket Draw allows easy access to the PostScript code for any drawing. The code in a PostScript window can be modified using an on-line help function that provides PostScript command syntax.

The other program that makes extensive use of PostScript and thus provides excellent output on high-resolution devices is Adobe Illus-

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trator. Because Illustrator and Cricket Draw both make direct use of PostScript, they are often seen as closely competing products, which is not true. Illustrator is primarily a tracing tool, not a free-hand drawing program like Cricket Draw.

Creating artwork is a three-step process with Illustrator. First you open a template, a background image that might have been created with another graphics program, electronically digitized with a scanner or chosen from clip art. The next step is to create a tracing of the template. During this process, the rough image is changed into the finished product. Finally, the drawing is filled in with gray shadings.

Because Illustrator is primarily a tracing program, it has a number of tracing tools and functions that are lacking in other packages. For example, to draw a curve — one of the most difficult elements to draw smoothly — you click on the point of the curve you want to draw and a handle that is tangent to the curve at that point appears. You then change the direction and length of the handle to shape the curve.

Although all drawing programs can be used for architectural and engineering drawing, the product that was created specifically for professional drafting work is MacDraft from Innovative Data Design Inc. of Concord, Calif. Robert White, a Fernandina Beach, Fla., architect, uses MacDraft for everything "from construction documents through design."

White, who over the years has used almost every Mac-based design and drawing program, finds MacDraft "just right for simple design work when you don't want to fuss with complicated CAD software." He added: "MacDraft is either a very sophisticated drawing package or a low-scale, but entirely adequate, CAD program. It's especially good for new CAD users to get them used to CAD concepts without confusion about how to create arcs, lines and dimensions."

Because its primary application is professional drafting, MacDraft makes more extensive use of numbers than other drawing programs. For example, before starting to draw, the user sets the drawing specifications, such as scale, grid snaps and size units. The foundation of a MacDraft drawing is the scale function. Once chosen, other features evolve and interact based on the particular scale.

Image processing

The newest category of graphics software is image processing. This fall, Image Studio, now in its final beta testing phase, will be released by Letraset USA of Paramus, N.J. This product will allow manipulation of scanned photographs and artwork to provide camera-ready images. Once an image is scanned and imported into Image Studio, a large range of tools can be used to create effects such as airbrushing, edge softening and paint smearing. The contrast of an image can be altered, even polarized, with a gray-scale map editor. Bert Monroy owns High-Res Solutions, a Brooklyn, N.Y., design house that has been a beta-test site for Image Studio for a year. He uses it for photo-retouching.

"Before I started using Image Studio, getting a photo ready to print meant sending it out over and over again," he said. "First I would have to make extra prints; then the photo goes to the retoucher. Then I wait a couple of days for it to come back. When it does, it's almost never exactly as I wanted it, so it has to go back at least once, sometimes three or four times. When it's finally right, it goes to the stat house.

"The whole thing used to take at least a week and cost a small fortune. Image Studio is cheaper, faster, and it gives me more control over the process. I can play around with retouching rather than guessing at how it will look," Monroy said.

The future

As the installed base of the Mac increases and graphics professionals and other users demand more sophisticated tools, developers are attempting to upgrade products and to create new ones that fill niches in the graphics market. The Mac II's color has already lured SuperMac Technology into the fray, and companies like Claris Inc. of Cupertino, Calif., are upgrading MacDraw and MacPaint to take fuller advantage of the newer machine's capabilities. Even Seattle-based Aldus Corp., developer of PageMaker, is jumping into the graphics software market with a product called Kaleidoscope, which reportedly has paint, draw and image-manipulation features.

So if the past has been bright, the future of graphics programs looks even brighter and more colorful. ■

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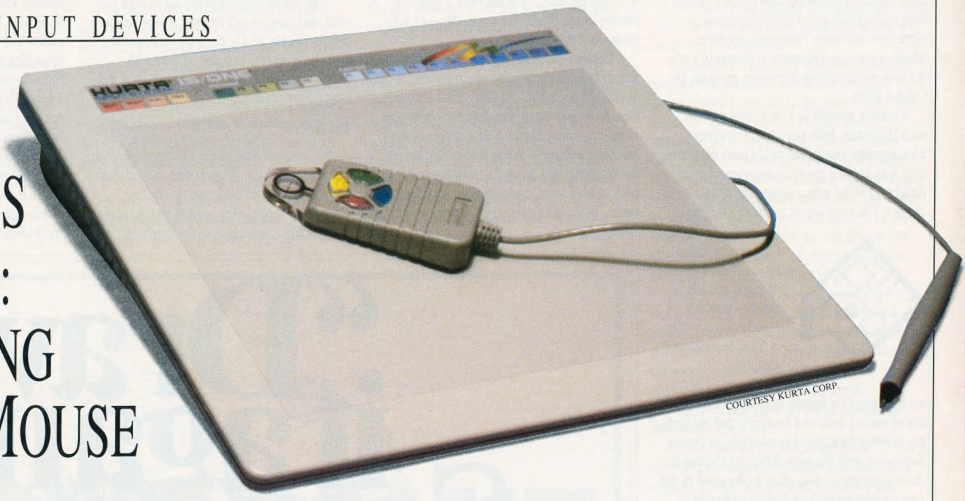
WINDOW ON INPUT DEVICES

GRAPHICS TABLETS: IMPROVING ON THE MOUSE



COURTESY KURTA CORP.

BY DENNIS KLATZKIN

Special to MacWEEK

In the beginning, there was the mouse.

For the first Macintoshes, the mouse was the sole source of original user input for non-textual data. But for graphics professionals and users with specific needs, the mouse was far from perfect. Aside from its awkward shape and feel, the mouse's main liability is that it cannot really be used for detailed, accurate applications like blueprints, maps and traced artwork.

That situation has changed dramatically. Even though the mouse is still strongly identified with the Mac's user interface, many people have turned to alternative devices that better suit their needs. While optical scanners have relieved the burden of capturing stock photos and drawings, it is the digitizing graphics tablet that has made it easier to create finished work with the Mac.

Expanded capabilities

Digitizing graphics tablets add to a computer system capabilities and practical applications that are not possible with the mouse alone. These electronic pad and stylus devices actually transcend the "graphics" part of their nomenclature. They can be used for a wide range of data input as well as drawing and tracing.

Jacques Swartz, president of 4SITE Technologies of Santa Cruz, Calif., said the digitizing tablet "is not just a graphics device; it's a complete control panel to do any input."

Swartz, whose company makes the PenMac digitizing tablet, said these devices are being used by illustrators, cartographers, engineers and architects for traditional drawing and CAD applications. He said these devices also are being used in desktop publishing to import formats from hard copy; in education to teach penmanship; and in general business for applications such as data entry from coded forms. He stressed the importance of graphics tablets as measurement devices as well as drawing tools.

Martian chronicles

At the California Institute of Technology's Jet Propulsion Laboratory, a NASA center in Pasadena, Calif., systems engineers in the Earth and Space Sciences Division are using PenMac tablets in their study of the surface of Mars. James Stephens, a member of the lab's technical staff, explained how the tablets are used with high-resolution photos of Mars' surface: "We can touch three points on the rim of a crater and our software will generate the crater's diameter. We can measure the distribution of craters and map and measure linear features by tracing over them." Stephens also uses the graphics tablets to trace curves and to digitize experimental strip chart readings.

Tracing lines and curves suggests another unique feature of graphics tablets. Unlike batch input devices, like optical scanners, that produce bit-mapped or raster-image files, tablets can produce MacDraw-like objects. Such object-oriented files can be further manipulated by the Mac's versatile QuickDraw routines or output to PostScript devices. According to Stephens, the graphics tablet also provides more accurate control than a mouse for drawing. At the lab, Stephens uses a variety of painting and drawing software tools on several Mac IIs. He admitted, however, that the tablet hasn't completely replaced the mouse, which he still uses for some positioning tasks.

While digitizing tablets can be used with nearly all Macintosh programs, including MacPaint and MacDraw, the use of tablets as measuring tools can require special programs, often custom-written for a specific application. But with the appropriate software, the tablets can be used for tasks such as planning and cost estimation.

Beverly Scott, manager of public relations and advertising at Kurta Corp. of Phoenix, Ariz., which manufactures the IS-PenMouse line of tablets, showed how digitizing tablets can be used for cost estimation in landscape architecture. A blueprint is laid over a graphics tablet and a series of key points or lines is traced from which areas and volumes can be generated automatically. From that data, topsoil requirements, ground bark, seed and other materials can be calculated. 4SITE's Swartz pointed out that graphics tablets can be used similarly in forestry and agriculture to calculate land areas and crop yields from maps or aerial photographs.

In the absolute

For drawing applications, a graphics tablet operates much like a mouse but with added functionality. A mouse or trackball uses relative positioning. With the pencil tool in MacPaint, for example, if you drag the mouse an inch to the right you will draw a horizontal 1-inch line on the screen starting at the location of the cursor on the screen. It doesn't matter where the mouse is located on your mouse pad. If you start to draw a line, then lift the mouse and move it to the other side of the mouse pad to resume drawing, the line will continue unbroken. Mouse movements are only relative to the mouse's starting point.

On the other hand, graphics tablets typically can use relative or absolute positioning. In the absolute mode, horizontal and vertical coordinates on the tablet correspond to an invisible grid on the screen. A touch of the stylus on the upper right corner of the tablet will move the cursor to the upper right corner of the screen. Absolute positioning is a more natural

See TABLETS, Page 48

Users say standards, ergonomics issues for alternative keyboards

Macintosh keyboards were for a long time an idle part of the peripherals market. Not everyone was satisfied with Apple's offerings and yet few alternatives appeared. Following Apple's decision to unbundle the keyboard with both the Mac SE and Mac II and the arrival of third-party products, users have shown an increased interest in (and confusion about) keyboard products.

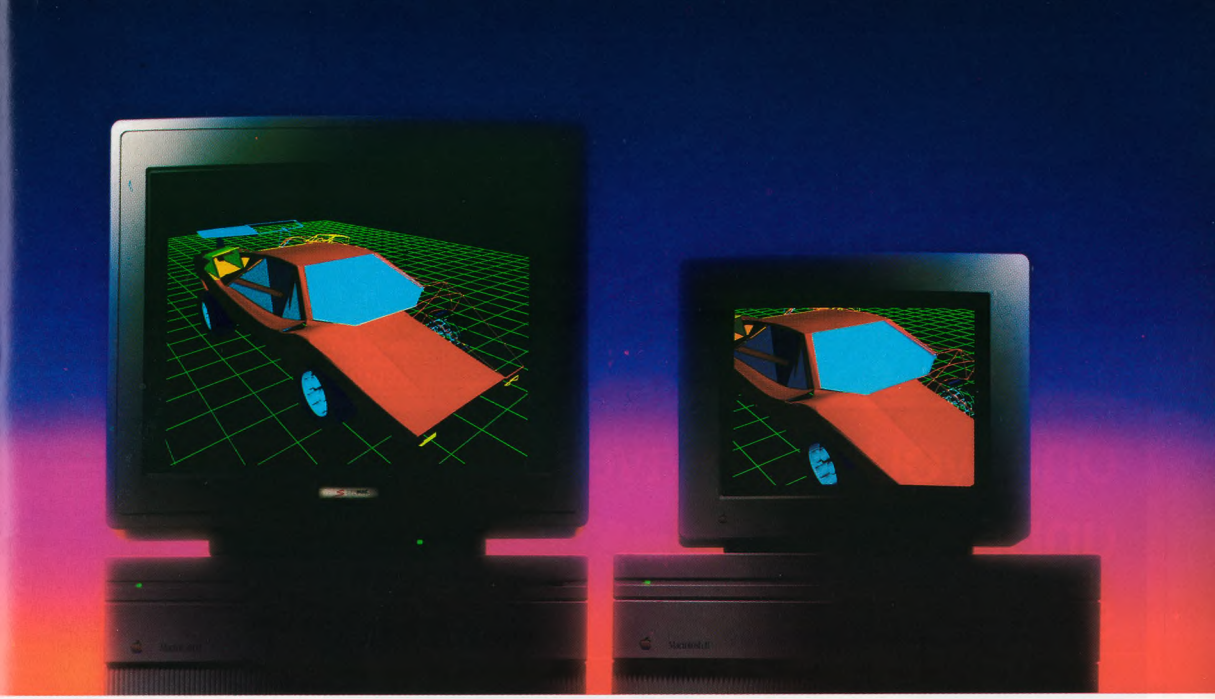
At the core of the keyboard controversy are several major issues. Ergonomics is an immediate issue. How satisfactory the design, size and slope of the keyboard — as well as the touch and response of the keys — depends on the user's preferences and work habits.

Bob Wall, pre-press manager at Clipboard Productions in Doraville, Ga., expressed his dissatisfaction with the original Mac keyboards at his printing production studio, saying, "They just felt cramped, and the action of the keys wasn't satisfactory. We were also using the separate numeric keypads and the combination was totally inadequate."

Clipboard Productions is now using PC MacKey keyboards from Tangent Technologies of Norcross, Ga. Nancy Wall, director of typesetting, said she believes the excellent layout and action of the PC MacKey along with the keyboard's function keys has increased word processing productivity.

Tangent has been producing the PC MacKey for some time. Steve Simpson, sales support manager at Tangent, recalls the keyboard's origins. "One of our engineers was writing a story using an Apple keyboard and got the dreaded 'Macintosh wrist.' We mocked up a PC keyboard to the Mac and realized it

See KEYBOARDS, Page 49



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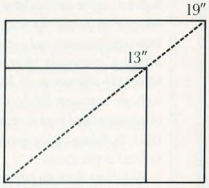

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TABLETS

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technique to graphic artists and is critical to certain digitizing tablet functions, such as tracing and measurement.

Ergonomics

Another thing that attracts some users, particularly artists and designers, to graphics tablets is the ergonomic factor. It has been said that using a mouse is like drawing with a bar of soap. The feel and technique of using a stylus is closer to that of a pen.

"I needed to minimize the amount of technology between me and my drawings," said Scott Cunningham, a production designer and artist at Foresight Films in New York. Cunningham uses the MacTablet from Summagraphics Corp. of Fairfield, Conn., to produce the storyboards for an upcoming film, "Passing Thru Linden." Thomas Brown, the producer of the film, said that certain scenes can be captured on videotape, still-framed and digitized onto the Mac with a flatbed scanner. The resulting screen image becomes a template with which Cunningham, using the MacTablet, achieves the rough drawn, linoleum-cut artistic style that he desires.

"There are artists who can do fine work with a mouse, but generally we need more accuracy than that," said James A. Black, the news graphics production supervisor at the Dallas Morning News. His department uses Macintizer graphics tablets from GTCO Corp. of Columbia, Md. A variety of graphics and word processing software is used with the tablets to produce the maps, charts, graphs and illustrations that have become an integral part of his newspaper, as well as a number of other newspapers and magazines. Black said he sees the graphics tablet as an essential tool for these drawings: "It is basically a precision mouse, and it's been a tremendous leap forward for us."

Choosing a tablet

Anyone contemplating using a graphics tablet must consider a number of options that vary depending on the user's purposes and requirements. Models offer a variety of features, performance, size, point-per-inch resolution and, of course, price, which can range from several hundreds to many thousands of dollars.

All the companies producing graphics tablets — GTCO, Kurta, Summagraphics and 4SITE — offer a range of models. Only Kurta and 4SITE manufacture tablets that work with the Mac SE and Mac II, although the other manufacturers are expected to achieve this compatibility in the next few months. And almost all of the current graphics tablets use either the printer or modem port. GTCO's Macintizer, however, uses the mouse port on the Mac 512K and Mac Plus. In addition, none of the tablets now available use the Apple Desktop Bus for the SE or the II. A buyer will be limited to those models that suit his or her hardware configuration, at least for awhile.

Another consideration is that the stylus of some models is connected to the tablet by a cord; other models use a cordless stylus. Some manufacturers offer an optional puck or "cursor" — a mouse-like device with a cross hair opening and several control buttons — for fine positioning and tracing. Summagraphics offers only absolute positioning with its tablets; the other vendors offer both absolute and relative postioning.

Graphics tablets range in size from those that approximate the dimensions of the Mac's screen to those that cover a table top. Larger-size tablets generally offer scaling features that allow for finely detailed drawings on the screen. "You can use a bigger tablet to do smaller work, but you can't always use a smaller tablet to do bigger work," said 4SITE's Swartz. The large tablets have a higher point-per-inch resolution and carry bigger price tags.

The software options offered with the different graphics tablets vary greatly. On the high end, some models have special software drivers that provide for very sophisticated macro assignments and user-definable screen mapping. In contrast, other models come with no control software at all. Kurta has several software templates for their tablets. 4SITE offers integrated hardware and software solutions, including custom programming, for specialized applications.

Selecting the right tablet for a particular job is not easy. But once you sort out all of the many variables in the equation, an increasingly powerful and versatile tool can be added to your system — and input will never be the same again. ■

Unprotected software is not freeware

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KEYBOARDS

Continued from Page 46

was a marketable product." The PC MacKey is compatible only with the original Macs and the Mac Plus. Although it has no immediate announcements, Tangent said it intends to enter the keyboard market for the SE and Mac II, which use the Apple Desktop Bus (ADB) for connecting input devices like keyboards and mice.

Another large after-market provider of keyboards for the MS-DOS environment, KeyTronic Corp. of Spokane, Wash., said it is evaluating the Macintosh market but has no specific product plans at this point.

The standard line

Large corporate users, especially those with networked systems, focus on another issue — keyboard standardization. Dr. Kenneth L. Phillips, vice president of telecommunications policy at Citicorp in New York, is also the chairman of the Committee of Corporate Telecommunications Users, an organization of 50 of the nation's largest corporate telecommunicators. He said, "The principal reason for going to third-party keyboards is not just ergonomics but to offer a more uniform interface across different machines."

> At the core of the keyboard controversy are several major issues. Ergonomics is an immediate issue (in the) design, size and slope of the keyboard — as well as the touch and response of the keys.

Phillips said for Apple to increasingly penetrate the corporate market, it must adhere to certain keyboard design features that were instituted by IBM and Digital Equipment Corp. Such keyboards, he said, "make the Mac a part of the family of standard human interfaces."

Citicorp is using several hundred Mac-101 keyboards from DataDesk International of Van Nuys, Calif. Phillips said he believes that Apple's extended keyboard for the SE and Mac II is a step in the right direction, but the DataDesk product and its accompanying software more fully satisfy his requirements for a standard interface.

Another corporate behemoth, Lockheed Missiles and Space of Sunnyvale, Calif., echoes the need for keyboard standards. Mike Bailey, a Lockheed program plan specialist, is evaluating the Mac-101. Regarding the potential impact of using the keyboard, he said, "It means we can buy keyboards from one company. When people go from one machine to another, there won't be major keyboard differences."

DataDesk offers keyboards that are compatible with both Macintosh models and the full line of IBM PCs and compatibles.

Another issue important to all users is a keyboard's programming ability. The function keys on the left side of the Tangent keyboard or across the top of the DataDesk models can be software-coded to perform certain keyboard, mouse, menu and window manipulations. Robert Solomon, DataDesk's president, refers to a chameleon effect, whereby the selective programming of function keys can give one software product a set of commands similar to another program. With the 101-Keys Desk Accessory that is bundled with Mac-101 keyboards, users can assign menu items, commands and complex multiple-key sequences to function keys, page control and cursor keys, and the numeric keypad.

The appearance of QuicKeys, a software product from CE Software of Des Moines, Iowa, has thrown a curve into the programmability issue. With QuicKeys, a user can make almost any imaginable keyboard assignment to any key on every keyboard available for the Macintosh — including the original Mac and Mac Plus versions, the new ADB keyboards and the Tangent and DataDesk keyboards. Dick Skeie, CE Software's president, modestly refers to this ability as "designing your own shortcuts." In fact, as QuicKeys' programmer Don Brown acknowledges, the product may already have obviated the issue of programmability and left users to debate the other keyboard issues on their merits.

With QuicKeys, every keyboard can have powerful, easily programmable keys. — *By Dennis Klatzkin*

New Version 2.2 with revised manual and improved printing!

An Important Message To Every Mac User Who Does Not Have A Degree In Computer Programming

Let's face it; sooner or later you'll want to do something that your Mac just won't do. It's not its fault, the Mac only does what its programs allow it to do. Here's your chance to do what you want. Create your own programs!

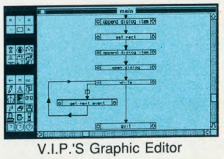
It used to be that you had to spend hundreds of dollars and several months of study to even begin to program. You almost had to have a degree in computer programming. No more! Programming a Mac can be as easy as using one.

VISUAL PROGRAMMING

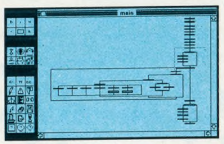
The idea is to use the visual power and intelligence of the Mac to make it easy to program. You program visually and the Mac interacts with you, keeping you on the right track. Thus the name Visual Interactive Programming™ or V.I.P. for short.

V.I.P. is a totally new type of language where a graphic interface replaces a text editor. Traditionally, programming is done by typing program statements into an editor following rigid rules of a language's arcane syntax.

Visual Programming, on the other hand, is done by pointing, clicking and entering expressions and arguments into elements of an on-screen flowchart.



V.I.P.'S Graphic Editor



Zoom View of Flowchart

A V.I.P. program is composed of graphic elements which can be cut, copied and pasted. The program is automatically structured with classical logic forms such as *if…then…else* or loops such as *while…do* and *for…next*. These are presented graphically. **The program becomes visual!**

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V.I.P., an interpreter, provides immediate feedback; as such, it's ideally suited for beginners. They can be creating programs with full Mac features 30 minutes after opening the package. V.I.P. is also great for programmers, skilled in other high level languages, who are seeking a painless introduction to the Mac.

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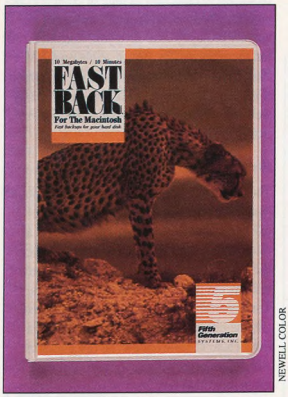
ALDUS

Backup, desktop publishing and telecommunications programs — three diverse but popular Mac functions — are reviewed here. Fastback from Fifth Generation is a speedy backup program, though we found it had some problems. With Ready,Set,Go! 4.0, Letraset challenges Aldus' PageMaker page-layout program. And with Version 10, the Red Ryder telecommunications program leaves the world of shareware for the commercial realm.

Fastback: Speedy, but some problems



NEWELL COLOR

Fastback 1.01

Fifth Generation Systems Inc.
11200 Industriplex Blvd.
Baton Rouge, La. 70809
(800) 225-2775; (714) 553-0111
List price: **$99.95** until Dec. 31.
Strengths: Remarkable speed; good interface and file-selection windows; error-correction for damaged backup disks; prints labels.
Weaknesses: Poor handling of defective media; files not Finder-readable; floppies only; some customer support problems.

BY RON RISLEY
Special to MacWEEK

Although backup programs compete in many areas — file selection flexibility, friendly interface, efficient use of disk space — none of these considerations is the real issue in the eyes of many users. Speed is. Because copying files to floppies is slow and tedious, a great many users simply can't bring themselves to do what they know they should.

Fastback for the Macintosh, a new version of a popular MS-DOS program from Fifth Generation Systems, may prove to be part of the solution. The current version has some significant problems, but what makes it special is its raw speed — for backing up to floppies, Fastback is far and away the fastest program currently available for the Mac.

Fastback's package prominently displays the words "10 megabytes/10 minutes," and our tests substantiated this claim. Using a 4-Mbyte Macintosh Plus with a CMS SD-80 80-Mbyte external hard drive, Fastback backed up 476 files totaling 15.719 Mbytes in 17 minutes. This is just over one-third the time that other popular Macintosh backup programs required to do the same backup using new disks. (See "Avoiding hard disk disasters," Aug. 18.) Fastback's extraordinary speed will encourage frequent backups, perhaps the most important consideration with backup software.

Fifth Generation combines several techniques to give Fastback its extraordinary speed. Proprietary disk output routines allow the program to write to floppy disks — it backs up to floppies only — while it is reading the hard disk. When it has filled one floppy and is waiting for you to dig up the next, it won't sit idle; it fills its internal buffers with data from your hard disk during disk swapping time. Finally, it uses a proprietary disk format that it creates as it copies, so you save even more time because there is no need for you to initialize new disks before writing to them. Because of the special format, the disks can be read only by Fastback. You can't access backup files with the Finder as you can, for example, when you do your backing up with SuperMac Software's DiskFit.

Incremental backups with Fastback are speedy as well. Twelve changed files totaling 1,136 Kbytes required only three minutes. In contrast to DiskFit, however, Fastback doesn't recover space during an incremental backup; changed files are added to the end of the backup set, not written over the previous version. You end up with a more complete archive of your progress, but you also will go through a lot of disks: Your backup set will grow every time you use it until it becomes unmanageable and you take the extra time to do a new full backup.

No quick port

Fastback for the Macintosh is no quick port of its MS-DOS ancestor. It's a friendly and intuitive program that makes good use of the Mac interface. One nice feature is an easy-to-use facility for selecting files or folders to be included in or excluded from a backup set. It displays an outline-style listing of folders in one window and in another displays the files in the last folder clicked on. Double-clicking on files or folders changes their selection status. You can start with no files selected, all files selected or all files modified after a certain date, then individually add or remove files from your backup list.

You cannot, however, automatically filter files by type; for instance, you cannot exclude system files or applications from your backup set. Nor is there any provision for saving file lists to disk. So if you have a certain set of files you like to archive regularly, you'll have to pick them manually every time you back up.

Fastback also does not sufficiently indicate the progress of a backup. When the job is done, the program reports the total time spent backing up and the time, if any, spent waiting for the user to insert floppies. But during the back-

See FASTBACK, Page 53

Ready,Set,Go! 4.0: A new heavyweight

BY BRUCE FRASER
Special to MacWEEK

With the release of Ready,Set,Go! 4.0, graphics giant Letraset has once more mounted a powerful challenge to the supremacy of Aldus' PageMaker in the desktop publishing market.

Even in the previous version, Ready,Set,Go! had some capabilities PageMaker did not match, particularly for long texts flowing over multiple blocks. Now Letraset has supplemented these batch-processing capabilities with dozens of significant new features:

• For word processing, new capabilities include search-and-replace for formats as well as text; improved spell checking, hyphenation and tabs; and — most importantly — powerful style sheets.

• For page layout, the program can now handle tabloid- and custom-size pages.

• The program's graphics options have been beefed up with a flexible duplicate command, additional pen/fill patterns (52 in all) and a "runaround" function that sends text flowing at a specified distance around objects, frames and even irregular images.

Ready,Set,Go! 4.0 makes it clearer than ever that Letraset and Aldus take different approaches to page layout. PageMaker remains a composition program pure and simple; other software is required for preparing all but the simplest text and graphics. Letraset, in contrast, has attempted to make Ready,Set,Go! 4.0 a one-stop solution by building in tools capable of handling many tasks that PageMaker delegates to compatible applications.

Because of this difference in philosophy, and because of some significant flaws and omissions in this new release, Ready,Set,Go! 4.0 may not win many converts among those attached to PageMaker. But the impressive and genuinely useful features added to Ready,Set,Go! mark a major improvement in an already popular program.

Blocks, grids and links

Three types of elements appear on the pages of Ready,Set,Go! 4.0: text blocks, picture blocks and graphic objects. Text blocks contain text, which may be imported or entered directly. Picture blocks contain imported graphics, and graphic objects are created within the program. As design aids, Ready,Set,Go! offers a choice of preset or user-defined grids, which can be displayed or hidden, and vertical and horizontal rulers with movable zero points, calibration in inches, centimeters, or picas and points, and dynamic display of cursor location.

Once a design grid is set up, the next step is to create frames to hold the actual text or graphics. A Snap To option aligns frames to the grid. (There are no PageMaker-style column guides.) For more precise placement, you can type size and position parameters to 1/1,000th of an inch into a specifications dialog box.

The linking tool, which connects text blocks in a continuous chain, is one of Ready,Set,Go!'s handiest features. Used with the program's ability to duplicate pages with or without links, it makes it possible to flow text through a large number of pages with very few commands. Simply set up the page as you wish it to look, click with the linking tool on the text blocks, tell Ready,Set,Go! how many duplicates of the page you want inserted, and place your copy in the first text block. The text will quickly and automatically flow from block to block through the document, without all the window-shade clicking PageMaker would require in the same circumstance.

As in other layout programs, left and right master pages are used to hold elements you wish to appear on every page, such as headers, page numbers and column rules. You can hide all master-page elements on any page in the document, but if you want some, though not all, such elements to appear on a particular page, you must hide them all, then copy the items you want from the master page and replace them on the page on which you are working.

Import text or process your own

Text can be imported from various word processing applications, including Microsoft Word 1.05 and 3.0, Microsoft Works, T/Maker's WriteNow, and MacWrite 4.5, as well as ASCII files. MacWrite files retain all formatting, but imported files from both versions of Word and from Works retain only character formats and some tabs. Paragraph attributes, such as left, right and first-line indent, space

See RSG, Page 52

NEWELL COLOR

Ready,Set,Go! 4.0

Letraset USA
40 Eisenhower Drive
Paramus, N.J. 07653
(201) 845-6100
List price: **$495**
Strengths: Powerful integrated word processing features (stylesheets, glossaries, search and replace); hyphenation and kerning; automatic text runaround with both graphic frames and irregularly shaped graphics; partial batch processing capabilities.
Weaknesses: Loses formats from Word files; no visual scaling of graphics; some features needed for batch processing are missing; some inattention to details.

RSG

Continued from Page 51

before and space after are lost. Unless you use MacWrite as your primary word processor, you will end up doing the bulk of your text formatting in Ready,Set,Go!.

But with Version 4.0, Ready,Set,Go! has itself become a high-end word processor. Tabs, a source of much confusion and irritation in the previous release, now work smoothly. A new and unique "power user's search and replace" works with formats as well as text. With it you can, for example, replace all 10-point Helvetica with 12-point Bookman, all underlined text with italics or all instances of the word "Illustration" in 9-point Times to "Figure" in 10-point New Helvetica Narrow.

Stylesheets — formatting macros that let you apply multiple character and paragraph attributes to selected text — is another feature unique to Ready,Set,Go! 4.0 among Mac publishing programs. This feature helps you maintain consistent styles for elements like headlines, subheads and pull quotes, and edit them globally with a single keystroke.

Ready,Set,Go!'s glossaries are used to store boilerplate text (with formats) that can be inserted at a keystroke. Like stylesheets, entries are saved with the document in which they are created, not in a standard glossary or settings file. But Import buttons provide a fairly simple way to bring previously created entries and styles into a new document. Both glossary entries and stylesheets can be assigned keyboard equivalents. In operation, these features are fast, easy to use and convenient.

Improved typographics

Typographic controls have been greatly enhanced in Ready,Set,Go! 4.0. Automatic kerning is now available — with fonts that have kerning tables — and text also can be kerned manually in 1-point increments. Hyphenation, based on algorithms and a user-definable exception list, works on the fly as you enter and edit text. Extensive new controls help you avoid the pitfalls that often characterize computerized hyphenation. You can set minimum word size, minimum number of characters before and after a hyphen, maximum number of consecutive lines that can be hyphenated, and whether capitalized words and the final word in a paragraph will be divided. When importing text, Ready,Set,Go! will optionally convert commonly used word-processing characters (",',--) to their typographical equivalents (“”,‘’,—).

The spelling checker is a no-frills but serviceable effort. Unrecognized words are selected, allowing quick correction. A second command, which must be issued separately after each suspect word is highlighted, offers suggested spellings for unknown words, along with a quick Replace button, but the dictionary's guesses are not especially intelligent. Yet a third menu or keyboard command lets you add words to a user dictionary. You also can edit it directly as text, though the procedure involved is clumsy.

Enhanced graphics

Graphics handling has been enhanced to support both EPSF and TIFF file formats, as well as PICT and MacPaint files. Imported graphics may be cropped or scaled either uniformly or non-uniformly. The graphics feature that will attract the most attention, however, is the run-around function, which allows text to automatically run around a picture, an object or another text block. You specify a "text-repel distance" and indicate whether you want text to run around the graphic frame or the graphic itself.

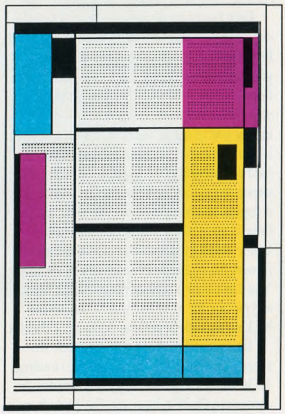
Other graphics features include a MacDraw-style Align Objects command and a new duplicate function that allows you to specify the number of copies of an object and their vertical and horizontal offsets. Ready,Set,Go! 4.0 also will create rectangles, rounded rectangles and ovals with a variety of line widths, pen and fill patterns. These features give the program real capabilities as a forms generator.

Rough edges

While Ready,Set,Go! 4.0 is undoubtedly a powerful package, it has a number of rough edges. These range from small annoyances in the interface to significant flaws.

The first disappointment is the program's inability to accept formatted Word files. Basic formats like bulleted lists, tables of contents and indented paragraphs are not translated. Word 3.0 isn't everyone's favorite word processor, but it is the dominant high-end word processor in the current Macintosh market, and any desktop publishing software that does not support it is going to inconvenience its users.

Other problems arise with the use of linked text blocks to automate the production of long documents. Although Ready,Set,Go! will flow text automatically in multicolumn layouts across many pages, it lacks widow and orphan control and the ability to set page or column breaks in the text. Every page has to be checked and manually adjusted if necessary — a time-consuming process that negates much of the benefit of automatic linking and flowing.



LAX JANSEN

Also missing are such very desirable features as indexing and table-of-contents generation, which are especially important in long publications like books and manuals.

On the surface, Ready,Set,Go! 4.0 looks like the perfect tool for such jobs, and the tools it does have perform very well. But the gaps make it a less than truly satisfactory package for producing long documents.

Many of the minor inconveniences that marred Ready,Set,Go! 3 have been fixed. The once-erratic scroll bars now work properly, and a Grabber hand has been added to make it even easier to navigate around the page. Some annoying quirks remain, however. The program no longer takes you to the upper-left corner of the page every time you change views, but it still does so when you switch from Size to Fit to Actual Size. Screen redrawing is slow and frequent. For global search-and-replace operations, the insertion point must be placed at the beginning of the text block or chain, since Ready,Set,Go! searches only from the insertion point to the end of the text. When the operation is concluded, the program scrolls to the end of the text block or chain, which may be on a different page. To conduct another search, you must scroll back to the beginning of the text and reposition the insertion point.

Proportion wheel?

Ready,Set,Go! lacks a way to scale graphics visually. Instead, you have to type horizontal and vertical scaling proportions into a dialog box. It seems odd that a $495 package should require that you use a proportion wheel to scale graphics, especially in light of PageMaker's smooth handling of the problem.

If you specify a starting page number other than 1, this is not reflected in the page number icons, or in the Go to Page Number command. You have to remember that Page 1 is, for example, actually Page 79.

Taken individually, any of these points would be a quibble, but the overall impression is one of some inattention to detail.

Ready,Set,Go! also makes heavy demands on memory, especially in long or complex documents, where out-of-memory messages frequently prompt you to save your document. So far, the program has proven stable on the Mac Plus, SE and II, with one interesting exception: It is incompatible with DiskTop, the normally well-behaved file-handling Desk Accessory from CE Software.

Documentation and support

The documentation — a 218-page spiral-bound manual divided into a brief tutorial, a fuller explanation of the program's features and a reference section — is an improvement over the scanty magazine/manual of the previous release, but it still falls short in some areas. The material is sometimes poorly organized, and the reference section is thin on information. There is, for example, no discussion of which formats are preserved and which are lost when importing text from word processing programs. An application of this complexity could also benefit from a "tips and tricks" section, which is absent. The package does, however, contain a brief but insightful guide to page design, stressing in particular the importance of consistency and restraint in composition.

Letraset has a toll-free support number available to registered users from 9 a.m. to 6 p.m. Eastern time. I called twice and both times my call was answered immediately and I was transferred to a technical support person who answered my questions knowledgeably.

In general ...

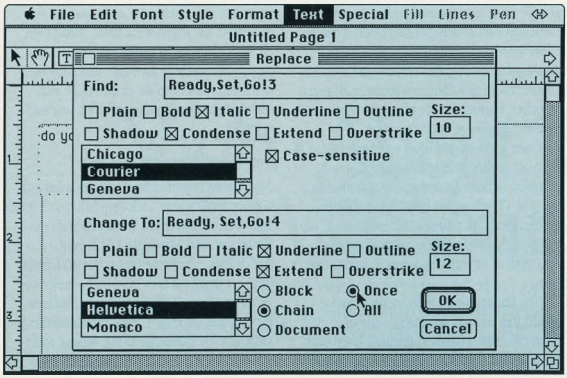
Shortcomings aside, Ready,Set,Go! 4.0 is a powerful program with some features that should become standard in page layout software. The stylesheets, glossaries and automatic text flow are particularly useful, the search and replace routines and hyphenation controls are impressive, and the arbitrary runaround feature is sure to be a crowd-pleaser.

With its grids and frames, Ready,Set,Go! offers a more structured approach to layout than does PageMaker. Many will find it easier to learn, though others will be frustrated by its limitations and omissions. In general, the program is best suited for projects with repetitive layouts and multipage articles, where its batch-processing functions work together to maximum advantage.

For those who are satisfied with combining their current word processing, drawing and layout programs, Ready,Set,Go!'s limitations may balance out its unique new features. But those who want a single integrated application for text editing, graphics and design will find Ready,Set,Go! 4.0 an impressive tool. ■

Bruce Fraser does freelance desktop publishing and operates a consultancy dedicated to Mac training and problem-solving.

Ready,Set,Go! 4.0's "power users' search and replace" command allows text to be altered by font, size and style.



FASTBACK

Continued from Page 51

up process itself, there is no indication of percentage complete or the number of files, kilobytes or disks remaining, although the name of each file is displayed as it's copied.

Fifth Generation touts Fastback's reliability as well as its speed, but we had mixed results with the program. Like the MS-DOS version, the Macintosh release puts error-correction codes on the backup floppies. Magnetic media can degrade with time, causing parts of the disk to become unreadable. According to the manual, Fastback can correct errors and recover files from backup disks even if as much as 10 percent of the sectors on the backup disk are damaged. This is particularly important to those who archive records on floppies that might have to be accessed years in the future.

We tested this feature — don't you try it! — by using a needle to put a small, tangential scratch on the surface of one of our backup disks. As Fastback read the damaged disk, the drive clicked and groaned, but eventually the program reported that seven tracks had been recovered by error correction. The restore was successful, even though the disk was so badly damaged the Mac later refused to initialize it.

A major problem ...

Despite this impressive performance, Fastback doesn't handle some other problems with such aplomb. The current version of the program does not deal properly with what it considers media errors on disks to which you are copying files. For example, you are 79 disks into a backup session on a large-capacity hard drive when Fastback detects an error on the next disk you insert. Instead of asking politely, in good Macintosh fashion, for a different disk, Fastback aborts the whole process. You'll have to start your backup all over again!

This is serious. You don't encounter bad media every day, but it is statistically likely that you will sooner or later. The way Version 1.01 of Fastback handles the problem could easily cost you more time than the program's fast copying ever saved you.

Fifth Generation is aware of the problem and promises a fix early this month. The upgraded release, to be labeled Version 1.02, will be distributed free to registered owners, but only if they complain to Fifth Generation about technical problems with the previous version. This is a wrong-headed approach to customer support. Most users won't know about the problem until they have already wasted their time with an aborted backup.

Some smaller problems

The new version also will clear up a few other problems. The current release does not restore information about the size, location and organization of folder windows. Version 1.02 will, as long as you completely restore the disk. The updated version will prevent you from restoring an old Desktop file, the invisible file the Mac system uses to keep track of what is where. In the current release, if you disregard the manual's instructions, you can wreak havoc by restoring a Desktop file containing information that is no longer valid.

Another limitation — one that Fastback shares with most of the backup programs on the market, except for DiskFit — is that when a disk is restored, you can't immediately double-click on a document icon and expect the appropriate application to be launched automatically. You must run the application itself once or else rebuild your Desktop — by holding down the Command and Option keys as you open the Finder — before applications and documents will be properly linked.

Manual and customer support

Fastback's manual is clear and informative, and there's a useful on-line help facility. But customer support could use improvement. Neither of the two phone numbers listed on the Fastback box reach technical support; for that you have to place a toll call to another number (listed inside the manual) in Baton Rouge, La.

That number proved to be busy for days on end. Persistence did pay off, however. When we reached technical support, we courteously received answers to all our questions. Fifth Generation said a new phone system will alleviate the difficulty of getting assistance.

Fastback is the new speed champ in the Mac backup field. If you need no-frills backups to floppies, Fastback will do the job in a hurry — and print your labels to boot. Just watch out for bad disks and be prepared to spend some time on the phone to get the updated version. ■

Ron Risley developed the shareware utilities BackDown and Immortality, and designs languages and processors.

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CHERYL LINGAR PENDLETON

Red Ryder programmer Scott Watson

BY DENNIS KLATZKIN
Special to MacWEEK

"Mr. Watson, come here. I want you!"

More than 100 years ago, Alexander Graham Bell's call to his assistant rang in the age of telecommunications. Today, in the aftermath of the long-awaited release of Red Ryder 10, programmer Scott Watson must be hearing the same words over and over again. Some of the calls to the latter-day Watson are no doubt congratulatory; others, we suspect, must be pleas for help.

The new Red Ryder is the latest incarnation of the ever-evolving telecommunications software package from Watson's FreeSoft Co. Actually, we should speak of the new Red Ryders because the two months since 10.0 appeared have already brought two bug-fixing updates and Version 10.3 is due out shortly. The new versions retain much of the flavor of their predecessors while adding layers of power and complexity.

The new generation also marks Red Ryder's transition from shareware to commercial product. User groups and electronic services continue to distribute the older Version 9.4 as shareware. But the current release is available only to those who paid the old shareware registration fee plus a charge for the upgrade, or to those who order the new package directly from FreeSoft.

The release of three revisions in quick succession shows that Watson remains as committed as ever to addressing the needs and suggestions of his program's users as quickly as he can, and in his energetic hands the program will no doubt continue to improve. The negative side is that even though the program has gone commercial, users still must invest time and effort to keep up with its evolution.

What it does

Red Ryder is a general-purpose communications package. It allows a Macintosh to communicate via a modem — or by direct hardware connection — with other computer systems that adhere to standard personal computer telecommunications protocols. Purchasers of Version 10 receive a program disk and a few related utilities, a 148-page manual and a registration kit for GEnie (General Electric Information Service's on-line network within which FreeSoft maintains a help forum).

Red Ryder's feature list is encyclopedic. The program operates at speeds ranging from 300 to 57,600 baud, and making changes to this and other parameters is as simple as clicking on the settings panel and a radio button. For transmitting and receiving files through the Mac's serial ports, the program supports a variety of transfer and error-checking protocols: MacBinary; XModem and several variants thereof, such as YModem, "Supercharged" XModem and 1K blocks; Kermit; and CompuServe's B protocol.

Red Ryder allows almost unlimited customizing. To cite just a few examples, you can set the number of scrolled screens you want it to keep in memory (watch out — the default, strangely, is zero!); the font and type size used on screen; the creator code for text files received (so they will open directly into your favorite word processor); the commands you want the program to ask you to confirm; the rate per minute for the on-screen time and billing clocks; and the number of characters per line as text is sent (after which Red Ryder will automatically insert a carriage return).

Multiple macros

Macros — user-defined strings of commands and text — can be set up as on-screen buttons and activated with the mouse. You can load 30 macros into the program at a time and save additional sets on disk. Files with settings for any remote computer also can be saved.

Red Ryder has menu options to record any parts of a session to a text file on disk, either as a new file or appended to an existing one. You can print the current screen, any text selected from the screen buffer or a text file saved on disk. You also can instruct the program to echo all incoming data directly to the printer, but this can slow down the speed of communication, and it isn't suitable for laser printers at all.

Using the mouse, you can select text from the screen to be copied and transferred via the Clipboard. You can paste it back to the modem, to a keyboard buffer that will store lines of text until you hit the Return key, into other applications (Version 10.3 should work in the background under MultiFinder) or into Desk Accessories like RedWriter, a MockWrite-like editor included on the distribution disk. For convenient transfer to spreadsheets and databases, the Copy Table command converts selected text to tabular format — occurrences of two or more space characters are replaced with tabs. For incoming data with embedded tabs, you can set screen tab intervals by clicking on a convenient ruler.

Like many other telecommunication packages, Red Ryder provides a limited degree of mainframe terminal emulation. It can be set in VT52 or VT100 mode to simulate the operation of those popular DEC terminals. As is often the case with personal computer-based telecommunications software, this emulation is incomplete and somewhat flawed.

The procedure language

The primary source of Red Ryder's power, as well as its difficulties, is its procedure language. The program makes available a set of more than 100 commands that constitute nothing less than a special-purpose programming language. Procedure files are written in a text editor program or Desk Accessory and are compiled and executed by Red Ryder. They provide scripted sequences with which to automate part or all of a telecommunications session. Unlike simple macros that send just a string of text, these procedures can be interactive with the remote computer and the user. Red Ryder can be instructed to wait for certain prompts from the remote host and to take a variety of actions depending on those prompts.

With procedure files, you can develop a custom mini-application within Red Ryder, complete with menus and dialog boxes. The procedure can exercise complete control over all of Red Ryder's settings and actions, its subsidiary files and any text file on disk. The procedure language is incredibly powerful.

But in a very real sense, it is programming. There are no Macintosh-like amenities to help you along. Some telecommunication packages, like Software Venture's MicroPhone and Hayes' Smartcom II, provide an environment within the program to write scripts by clicking on buttons, icons and text items in scrolling lists. Red Ryder's procedures are created by typing in a text-only window, and the procedures have a rigid and unforgiving syntax.

Of course, Red Ryder is a functional and versatile program without the use of proce-

Continued on next page

What's new in Version 10

While the late-August release of Red Ryder 10 represented a momentous upgrade, the 10.1 and 10.2 versions that have followed are only aftershocks. Here is a summary of the significant changes from Version 9.4 and prior releases to the new 10.x generation.

As with prior upgrades, some menu items have migrated and been given new names and command-key shortcuts; Red Ryder users must be accustomed to frequent retraining. Some configuration options have moved from menus to dialog boxes. You can now specify more telecommunication and personal preferences than you ever imagined having (or needing).

A welcome addition to the Edit menu is the Find command, which searches through remembered screens for a user-specified text string and points it out with a zooming rectangle or, if you prefer, a more modest display with blinking highlighting. Although hampered by being case-sensitive (you have to remember what you or your correspondent typed in capital letters), this feature allows you to return quickly to earlier parts of an on-line session.

Red Ryder now supports batch file transfers using the Ymodem protocol and the so-called 1K block transfers. The remote system also must support these protocols to use them in Red Ryder. Versions 10.1 and 10.2 attempt to rectify some earlier problems and inconsistencies with these features, as well as snags with its VT-100 terminal emulation.

A much-needed Phonebook for storing telephone numbers and related information has been incorporated directly into the program. Via the Phonebook, you can specify the settings file, autodialing command and procedure file associated with a remote service or bulletin board. The concept is good, but we don't like the implementation. The simulation of a mechanical slide-control phone organizer is overly cute and almost as clumsy as the real thing.

The procedure language has changed considerably and its command set has grown richer. But there have been enough changes in syntax that users of previous versions will have to rewrite many of their procedure files. Procedures must now be compiled by Red Ryder before it can execute them. The result is that they run very quickly, but their development is considerably more complicated. A utility recently posted on GEnie's FreeSoft RoundTable promises to update old procedures automatically, but we have not yet had a chance to put this program through its paces.

Perhaps the most significant improvement for the average user is the ability to use Desk Accessories during file transfers. During a lengthy download, for example, you can be reading the messages you previously captured to a disk file or you can be playing tic-tac-toe to relieve the boredom.

But there are caveats. The manual has an understated warning that some Desk Accessories can cause problems with file transfers. Any operation that ties up the Mac's processor — such as long disk accesses or mouse presses — can severely slow or even abort file transfers. And some background utilities that continually compete with Red Ryder for the Mac's attention, like the Pyro screen saver, can slow the file transfer rate by up to 40 percent. Users will have to keep a watchful eye on transfer speeds and make appropriate software adjustments. The same advice will no doubt apply to the use of the forthcoming Version 10.3 under MultiFinder.

Along with Version 10.1, Watson introduced a separate Shell Compiler that allows very advanced users to further customize the telecommunications interface with familiar Macintosh dialogs. Although the average user won't make use of it, the Shell Compiler will probably result in some very sophisticated Red Ryder procedures appearing in public domain and shareware libraries. — *By Dennis Klatzkin*

Continued from previous page

dures. And for those who want the convenience of procedures but lack the skill, patience or inclination to write them, there is a feature called "Write A Procedure For Me." In this mode, Red Ryder will monitor your telecommunication session and write a procedure file based upon current settings, the host's messages and your responses. Although you can't develop a full-featured application with this tool, it is sufficient to chart a script that will automatically log you on a remote system and navigate around it. Often, though, the files created in this way must be manually "massaged" to make them operate exactly as you wish.

Performance

Once its complexities are mastered, Red Ryder performs quite well. This current version is stable and responsive. Procedures, once debugged and compiled, execute rapidly. Unfortunately, many users will get lost in the morass of long menu selections and complex dialogs involved in setting up and using the program.

We found Red Ryder not quite as fast at file transfers as some of its rivals. Watson insists that one of our Desk Accessories or INITs must be causing a slowdown, but we were unable to locate the culprit. In any case, Red Ryder makes a respectable showing. At worst, its download performance using conventional protocols was only 5 percent off the pace of the faster programs. This speed difference could theoretically add up to slightly higher long-distance or network charges, but macros, procedures and other time-saving features in Red Ryder should compensate for the difference.

Documentation and support

The Red Ryder manual is perhaps the weakest part of the package. In contrast to the exemplary documentation accompanying MicroPhone 1.1, Red Ryder presumes familiarity with the concepts and jargon of telecommunications. There is no "getting started" section or tutorial, no built-in help, scarcely any illustrations and only a minimum of hand-holding for the beginner. Despite Watson's folksy metaphors and humor, non-technical users may be overwhelmed with "technospeak."

For those more conversant with the program or telecommunications in general, the manual is a very good reference guide. However, users of older versions of the program will not find any section on converting old procedure files. And although there is an index of Red Ryder's menu items and procedure commands, there is no comprehensive general index. Watson has indicated that the next printing of the manual will address these shortcomings and that a manual "upgrade path" of some sort will be available to prior buyers.

FreeSoft offers telephone support during regular business hours (it's a toll call to the company's new offices in Pennsylvania), and Watson himself is usually available from 3 p.m. to 5 p.m. EST for questions. The phone lines are often busy, and some patience and redialing may be necessary. But the quality of the support is quite good once you get through. Watson seems to be dedicated, almost to a fault, to accommodating Red Ryder users.

Support also is offered in the FreeSoft RoundTable, a special forum on GEnie available only to registered Red Ryder owners. There is a time-based charge for the service, but GEnie's off-hour rates are among the lowest in the industry. The RoundTable, with many knowledgeable and helpful inhabitants, provides a uniquely interactive medium of product support, discussion and input to FreeSoft. It is also the most reliable source for word about upgrades. At press time, Version 10.2 was available for downloading by registered owners. A variety of utilities useful to Red Ryder owners also are stored in the forum's data libraries.

Conclusions

For its modest price, Red Ryder may well offer more power per dollar than any other application in the Mac domain. It is certainly not the answer for everyone — newcomers already befuddled by the technical nature of computer communications may liken their first encounter with Red Ryder to climbing into the cockpit of a Boeing 747. For a user who wishes only to log on to bulletin boards, read messages and transfer a few files, Red Ryder, once mastered, will do the job, but it may be overkill.

Yet for those telecommunications users who need a great deal of flexibility and programming power and for those to whom the process of telecommunicating, with all its mysteries and convolutions, is a fascinating end as well as a means, Red Ryder may be the ultimate "construction set." It is solid, challenging, gratifying to use, and a rare bargain. ■

Dennis Klatzkin is a Mac consultant who specializes in graphics design and telecommunications. He lives in the San Francisco area.

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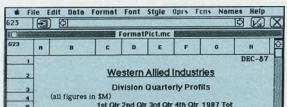
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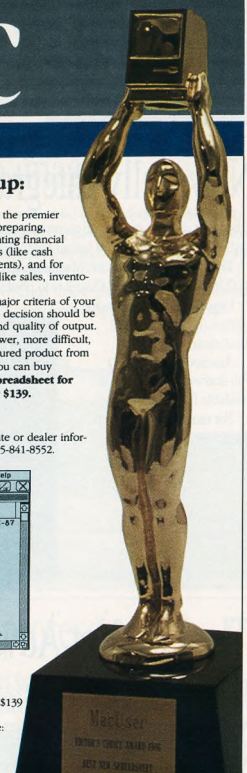

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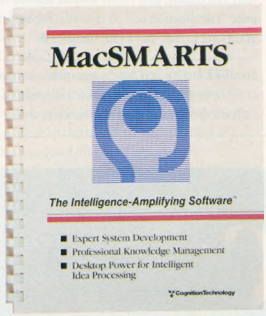

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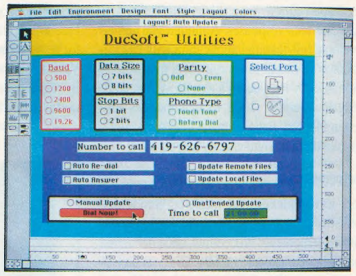

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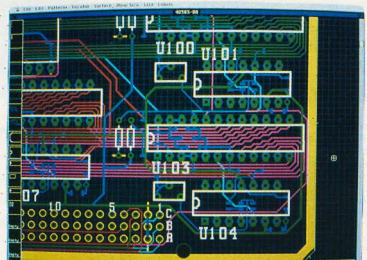

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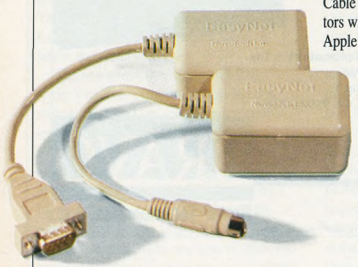

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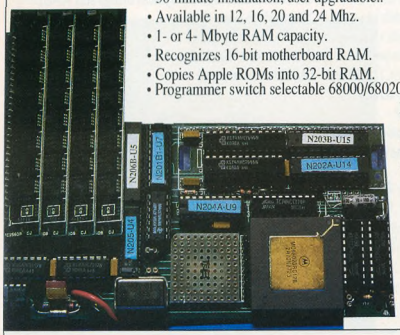

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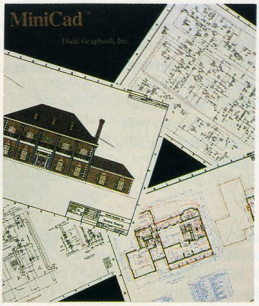

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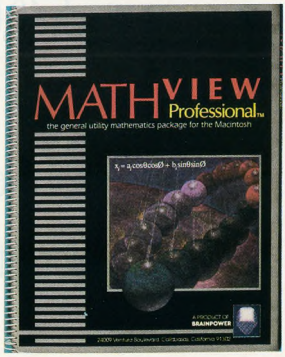

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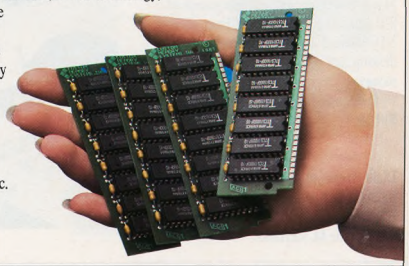

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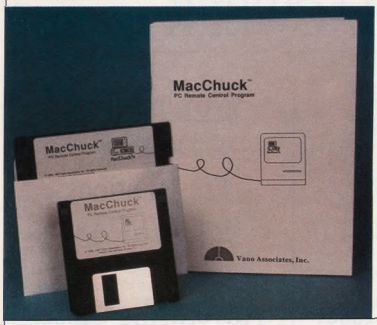

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Business clicks with MacWEEK.

MAC THE KNIFE

Hot on the heels of Motorola's '030 and '040 announcements last week, most of Mac's sources have chips on the brain. A lot of the scuttlebutt has more to do with Intel than with the Motemen from Austin.

The battle cry of nearly every third-party vendor these days seems to be "'386, '386," although they won't say so publicly.

In fact, vendors have been downright elusive about their plans to develop 80386 microprocessor cards for the Macintosh, which must be disconcerting for AST Research Inc., the Irvine, Calif.-based firm that recently began shipping its Mac286 microprocessor card for the Mac.

Chips and Technologies, the San Jose, Calif., wizards who were instrumental in launching the clone revolution, are at it again in the '386 arena. Word is that Apple is talking to Chips about its '386 chip set.

Meanwhile, rumors persist that Apple wasn't thrilled with the AST-Phoenix Technologies joint development of the Mac286 and Mac86 — something about being behind schedule. Could they be looking elsewhere for a '386 coprocessor? If so, AST's dire enemy, Georgia-based Quadram, has hinted that it would be interested.

Deep chip

Speaking of enemies, even Motorola's are trying to emulate the Intel processor. The Knife's Motorola source didn't wait a minute to reply to the news in last week's column that IBM is working on a talented RISC chip that will emulate the instruction sets of both the 68020 and the 80386.

Deep chip said Motorola has working prototypes of a "68386"chip that has what he calls a "writable" control store that allows it to download any set of available microcode.

"With an '020 set and a '386 set, a computer like the Mac can switch over to MS-DOS (or OS/2) and back again, all in software with no add-on boards," he said.

They are even considering including instruction sets for VAX and 360/670. The hot speculation in the lab is that Apple is helping to fund the project. One computer, one world. Talk about strategic investments.

Regarding last week's column, someone else agreed with the Knife that a certain opinionated editor's outside writing project amounted to a conflict of interest. Question: Did she jump or was she pushed?

Stormy weather

There's still a cloud of intrigue swirling over the Microsoft-Internet-Symantec-Think dealings. A Knife informer said that despite Andy Singer's statements, it was Microsoft that rejected Think, not vice versa. Wasn't impressed with the code, the story goes. We haven't heard the last of this one.

Now Think has another problem — MultiFinder. InBox just doesn't get along with Apple's semi-multitasker. Symantec is admitting that it will take at least two months of intensive counseling to get them on speaking terms.

While some companies are contemplating a future colored by worldwide economic collapse, Apple is out beating the bushes for bodies to fill a couple of important-sounding mid-level positions. Just hope the guys who presently hold these positions know that Apple has a change in store for them.

Looks like SuperMac got a new FCC attorney in Washington recently. While the RLL series drives still don't have FCC stickers, SuperMac itself is the proud owner of an FCC "exception letter." That attorney deserves something extra in his stocking next year.

In the low-end workstation wars, the Macintosh II is seen as quite competitive. In fact, several workstation players, including LSI Logic, Daisy and, possibly, Mentor Graphics are considering OEMing the Mac II as their low-end offering. Makes sense, since Apollo's OEM Mentor is responsible for about a third of Apollo's business.

Art-imitates-life department

A couple of weeks ago the Knife repeated a questionable Joe Biden HyperCard joke. Surprised he was to hear from Computer Living's Andrew Wolf, who claims that he is responsible for developing a Joe Biden stack that he uploaded to CompuServe Sept. 23. Just imagine what a salacious HyperCard scripter could do with a Gary Hart stack.

* * *

Whether your tip is from the campaign trail or the chip wars, I'm all ears and the mug's all yours. Contact me at (415) 882-7370 or via MCI Mail at (MactheKnife). ■

Bill Hulbig: On Education

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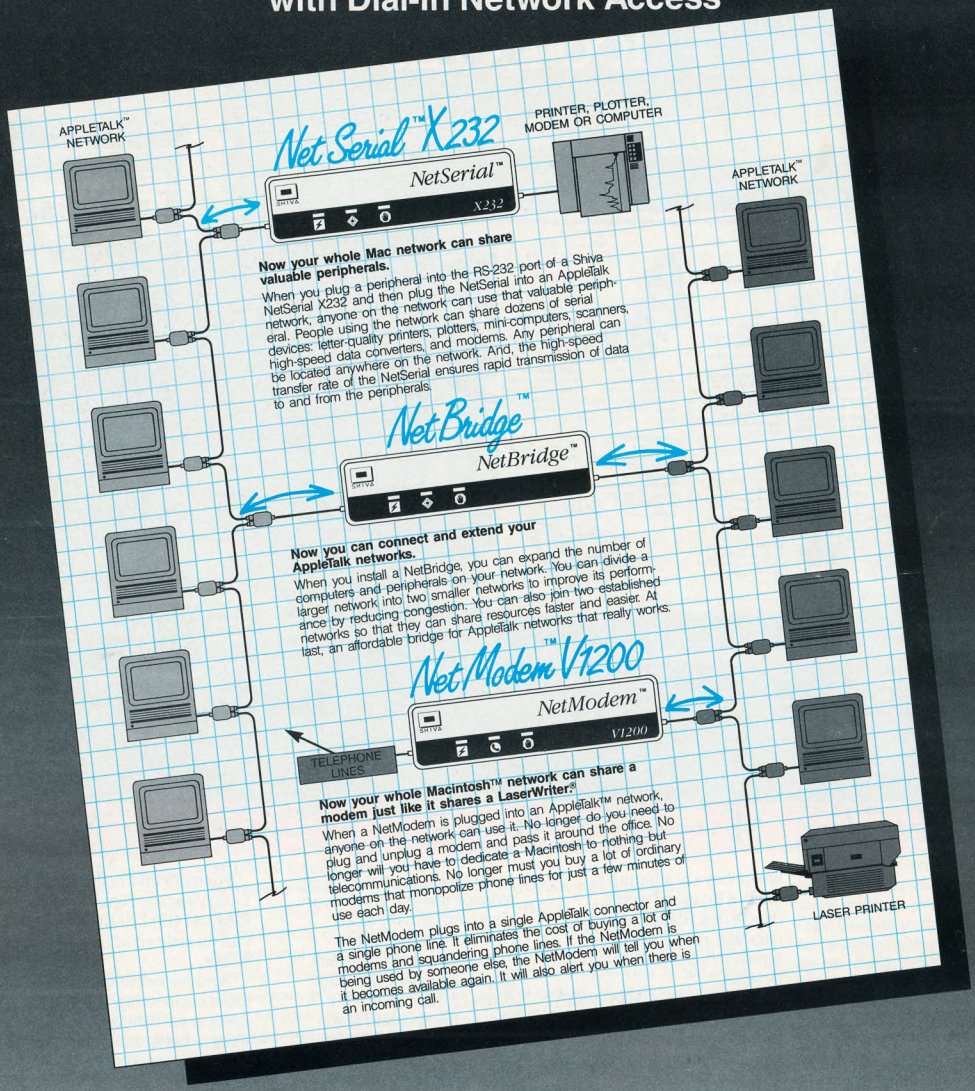
Superconnectivity

NetSerial and NetModem now shipping with Dial-In Network Access*


APPLETALK™ NETWORK
NetSerial™ X232
NetSerial™
X232
PRINTER, PLOTTER, MODEM OR COMPUTER
APPLETALK™ NETWORK
Now your whole Mac network can share valuable peripherals.
When you plug a peripheral into the RS-232 port of a Shiva NetSerial X232 and then plug the NetSerial into an AppleTalk network, anyone on the network can use that valuable peripheral. People using the network can share dozens of serial devices: letter-quality printers, plotters, mini-computers, scanners, high-speed data converters, and modems. Any peripheral can be located anywhere on the network. And, the high-speed transfer rate of the NetSerial ensures rapid transmission of data to and from the peripherals.
NetBridge™
NetBridge™
Now you can connect and extend your AppleTalk networks.
When you install a NetBridge, you can expand the number of computers and peripherals on your network. You can divide a larger network into two smaller networks to improve its performance by reducing congestion. You can also join two established networks so that they can share resources faster and easier. At last, an affordable bridge for AppleTalk networks that really works.
NetModem™ V1200
NetModem™
V1200
TELEPHONE LINES
Now your whole Macintosh™ network can share a modem just like it shares a LaserWriter.®
When a NetModem is plugged into an AppleTalk™ network, anyone on the network can use it. No longer do you need to plug and unplug a modem and pass it around the office. No longer will you have to dedicate a Macintosh to nothing but telecommunications. No longer must you buy a lot of ordinary modems that monopolize phone lines for just a few minutes of use each day.
The NetModem plugs into a single AppleTalk connector and a single phone line. It eliminates the cost of buying a lot of modems and squandering phone lines. If the NetModem is being used by someone else, the NetModem will tell you when it becomes available again. It will also alert you when there is an incoming call.
LASER PRINTER

*Dial-In Network Access allows anyone with a Macintosh and an ordinary modem to become a "node" on an AppleTalk network over the phone line. This remote node operation means you can dial-up the NetModem or NetSerial-with-modem from your home and become part of the network in your office.

You can share the resources of the network from your home or other remote site: copy files from the AppleShare server; send electronic mail messages with Intermail; or, print on the LaserWriter.

Shiva brings Superconnectivity to your AppleTalk environment.
For more information and the name of your nearest dealer, call 1-800-458-3550. Dealers: call for a Dealer Information Kit and the name of your local sales representative.

SHIVA
Corporation

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